



Ref. Certif. No.

JPTUV-053367

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST
CERTIFICATES FOR ELECTRICAL EQUIPMENT
(IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE
CERTIFICATS D'ESSAIS DES EQUIPEMENTS
ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product
Produit

DLP Projector

Name and address of the applicant
Nom et adresse du demandeur

Qisda Corporation
157, Shan-Ying Road,
Gueishan, Taoyuan 333 Taiwan

Name and address of the manufacturer
Nom et adresse du fabricant

Acer Incorporated
7F.-5, NO. 369, FUXING N. RD.,
SONGSHAN DIST., TAIPEI CITY 10541 Taiwan

Name and address of the factory
Nom et adresse de l'usine

See additional page(s)

Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

AC 100-240V; 50-60Hz; 2.8A; Class I

Trademark (if any)
Marque de fabrique (si elle existe)

acer

Type of Manufacturer's Testing Laboratories used
Type de programme du laboratoire d'essais constructeur

N/A

Model / Type Ref.
Ref. de type

X1373WH, D222D, EV-W53H, QWX1313, X1373W, D222, EV-W53
QWX1312, X1273H, D212D, EV-X53H, QNX1311, X1273N, D212A
EV-X53E, QNX1329, X1273, D212, EV-X53, V20X, AX302
For other models details, refer to the test report
For model differences, refer to the test report.

Additional information (if necessary may also be
reported on page 2)
Les informations complémentaires (si nécessaire,
peuvent être indiqués sur la 2^{ème} page)

A sample of the product was tested and found
to be in conformity with
Un échantillon de ce produit a été essayé et a été
considéré conforme à la

IEC 60950-1:2005+A1
National differences see test report

As shown in the Test Report Ref. No. which forms part
of this Certificate
Comme indiqué dans le Rapport d'essais numéro de
référence qui constitue partie de ce Certificat

11034576 001

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification



TÜV Rheinland Japan Ltd.
Global Technology Assessment Center
4-25-2 Kita-Yamata, Tsuzuki-ku
Yokohama 224-0021 Japan
Phone + 81 45 914-3888
Fax + 81 45 914-3354
Mail: info@jpn.tuv.com
Web: www.tuv.com

Date:

27.09.2013

Signature:

Dipl.-Ing. F. Stöelzel

1. Qisda Corporation
157, Shan-Ying Road,
Gueishan, Taoyuan 333
Taiwan
2. Qisda Optronics (Suzhou) Co., Ltd.
No.169, Zhujiang Road, New District
Suzhou, Jiangsu 215129
P.R. China


Additional information (if necessary)
Information complémentaire (si nécessaire)

Report Ref. No.: 11034576 001

27.09.2013

Date:

Signature:


Dipl.-Ing. F. Stoelzel



Test Report issued under the responsibility of:



TEST REPORT IEC 60950-1 Information technology equipment – Safety – Part 1: General requirements	
Report Number	11034576 001
Date of issue	September 25, 2013
Total number of pages	76
CB Testing Laboratory	TÜV Rheinland Taiwan Ltd., Taichung Laboratory
Address	No. 9, Ln. 36, Sec. 3, Minsheng Rd., Daya District, Taichung City 428, Taiwan
Applicant's name	Qisda Corporation
Address	157, Shan-Ying Road, Gueishan, Taoyuan 333 Taiwan
Manufacturer's name	Acer Incorporated
Address	7F. -5, NO. 369, FUXING N.RD., SONGSHAN DIST. , TAIPEI CITY 10541 Taiwan
Test specification:	
Standard	IEC 60950-1:2005 (Second Edition) + Am 1:2009
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No.	IEC60950_1C
Test Report Form(s) Originator	SGS Fimko Ltd
Master TRF	Dated 2012-08
Copyright © 2012 Worldwide System for Conformity Testing and Certification of Electrotechnical Equipment and Components (IECEE), Geneva, Switzerland. All rights reserved. This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context. If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed. This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	
Test item description	DLP Projector
Trade Mark	acer
Manufacturer	Acer Incorporated
Model/Type reference	X1373WH; D222D; EV-W53H; QWX1313; X1373W; D222; EV-W53; QWX1312; X1273H; D212D; EV-X53H; QNX1311; X1273N; D212A; EV-X53E; QNX1329; X1273; D212; EV-X53; V20X; AX302; QNX1310; X1173H; D202D; EV-S53H; QSV1309; P1173; M302; PE-S33; V22S; AS315; QSV1308; X1173A; D202P; EV-S53T; V21S; AS305; QSV1307; X1173N; D202A; EV-S53E; QSV1328; X1173; D202; EV-S53; V20S; AS303; QSV1306; X1171; D201; EV-S52; V11S; AS203; QSV1337
Ratings	100-240V~, 50-60 Hz, 2.8A

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Refer to cover page
Testing location/ address		Refer to cover page
<input type="checkbox"/>	Associated CB Laboratory:	
Testing location/ address		
Tested by (name + signature)		Jacky Chen
Approved by (name + signature)		Steven Wu
<input type="checkbox"/>	Testing procedure: TMP	
Testing location/ address		
Tested by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	Testing procedure: WMT	
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	Testing procedure: SMT	
Testing location/ address		
Tested by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		
<input type="checkbox"/>	Testing procedure: RMT	
Testing location/ address		
Tested by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		

List of Attachments (including a total number of pages in each attachment):

- Photo documentation
- Measurement Section (including in this test report)
- National Differences

Total number of pages in each attachment is indicated in individual attachment.

Summary of testing:**Tests performed (name of test and test clause):**

All applicable tests as described in Test Case and Measurement Sections were performed.

The Ballast and power supply information, see General product information in following pages.

- The maximum operating ambient shown in user's manual is 35°C (at sea level) but as client's request evaluated at 40°C in this test report.
- For model difference, see the General product information in following pages.
- If no other specified, all tests conducted on model P1173.
- The load conditions used during testing as below:
 - video signal provided
 - full raster
 - maximum brightness and contrast
 - continuous operation
 - maximum volume for speaker
- There are two types (type A and B) main board (all SELV) provided for this projector; Main board type B was similar with main type A except for without HDMI and mini USB ports. In this test report, all tests conducted with main board type A.
- As client's request, this equipment operating up to altitudes 3000m, the required clearance multiplied by altitude correction factors, 1.14 according to the Table A.2 of IEC 60664-1:2007 standard, see table 2.10.3 and 2.10.4.

Testing location:

All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.

Summary of compliance with National Differences

List of countries addressed:

EU Group Differences, EU Special National Conditions, CA, DE, FI, IL, KR, US.

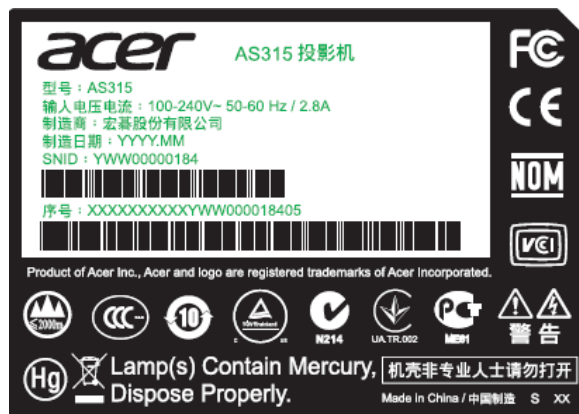
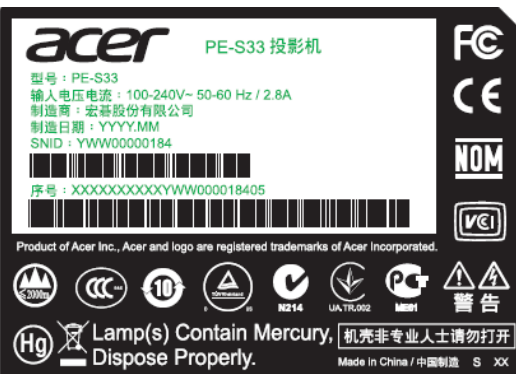
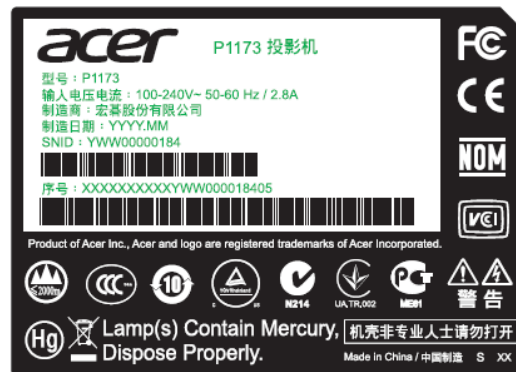
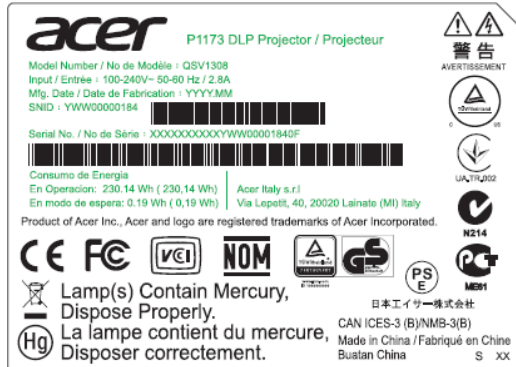
Explanation of used codes: CA = Canada, DE = Germany, FI = Finland, IL = Israel, KR = Republic of Korea, US = United States of America.

☒ The product fulfils the requirements of EN 60950-1:2006/A11:2009/A1:2010/A12:2011

Copy of marking plate

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

(Additional requirements for markings. See 1.7 NOTE)



acer X1173N DLP Projector / Projecteur

Model Number / No de Modèle : QSV1328
 Input / Entrée : 100-240V~ 50-60 Hz / 2.8A
 Mfg. Date / Date de Fabrication : YYYYMM
 SNID : YWW00000184

Serial No. / No de Série : XXXXXXXXXXYYWW00001840F

Consumo de Energía
 En Operación: 230.14 Wh (230.14 Wh)
 En modo de espera: 0.19 Wh (0.19 Wh)

Acer Italy s.r.l.
 Via Lepetit, 40, 20020 Lainate (MI) Italy

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.
 La lampe contient du mercure,
 Disposer correctement.

CAN ICES-3 (B)/NMB-3(B)
 Made in China / Fabriqué en Chine
 Bualan China S XX

日本エイスー株式会社

警告
 AVERTISSEMENT

UA-TR-002
 N214
 PS E
 M891

acer X1173N DLP Proyektor

NOMOR MODEL : QSV1328
 NILAI DAYA : 100-240V~ 50-60 Hz / 2.8A
 NOMOR SERI IO : YWW00000184

NOMOR SERI : XXXXXXXXXXYYWW000018400

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

CAN ICES-3 (B)/NMB-3(B)

FC CE VCCI

Lamp(s) Contain Mercury,
 Dispose Properly.

Made in China / Fabriqué en Chine
 Bualan China / 中國製造 / 中國製造 S XX

日本エイスー株式会社

警告
 NOM

UA-TR-002
 N214
 PS E
 M891

acer X1173N 投影机

型号 : X1173N
 输入电压/电流 : 100-240V~ 50-60 Hz / 2.8A
 制造商 : 宏碁股份有限公司
 制造日期 : YYYYMM
 SNID : YWW00000184

序号 : XXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

FC CE VCCI

Lamp(s) Contain Mercury,
 Dispose Properly.

Made in China / 中國製造 S XX

警告

UA-TR-002
 N214
 PS E
 M891

acer D202A 投影机

型号 : D202A
 输入电压/电流 : 100-240V~ 50-60 Hz / 2.8A
 制造商 : 宏碁股份有限公司
 制造日期 : YYYYMM
 SNID : YWW00000184

序号 : XXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

FC CE VCCI

Lamp(s) Contain Mercury,
 Dispose Properly.

Made in China / 中國製造 S XX

警告

UA-TR-002
 N214
 PS E
 M891

acer EV-S53E 投影机

型号 : EV-S53E
 输入电压/电流 : 100-240V~ 50-60 Hz / 2.8A
 制造商 : 宏碁股份有限公司
 制造日期 : YYYYMM
 SNID : YWW00000184

序号 : XXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

FC CE VCCI

Lamp(s) Contain Mercury,
 Dispose Properly.

Made in China / 中國製造 S XX

警告

UA-TR-002
 N214
 PS E
 M891

acer X1173N DLP 投影机

型号 : QSV1328
 输入电压/电流 : 100-240V~ 50-60 Hz / 2.8A
 制造商 : 宏碁股份有限公司
 地址 : 新北市汐止區新台五路一段88號
 電話 : (02)2696-0099
 製造年份 : 2013
 規格 : 請參考包裝盒之標籤的規格說明
 SNID : YWW00000184

序號 : XXXXXXXXXXYYWW000018400

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

CAN ICES-3 (B)/NMB-3(B)

FC CE VCCI

Lamp(s) Contain Mercury,
 Dispose Properly.

緊急處理方法：
 洽詢買家或服務專線：
 (02)2696-0099

使用方式：請參考快速指南

生產地：中國
 S XX

警告

UA-TR-002
 N214
 PS E
 M891

acer X1373WH DLP Projector / Projecteur

Model Number / No de Modèle : QWX1313
 Input / Entrée : 100-240V~ 50-60 Hz / 2.8A
 Mfg. Date / Date de Fabrication : YYYYMM
 SNID : YWW00000184

Serial No. / No de Série : XXXXXXXXXXYYWW00001840F

Consumo de Energía
 En Operación: 230.14 Wh (230.14 Wh)
 En modo de espera: 0.19 Wh (0.19 Wh)

Acer Italy s.r.l.
 Via Lepetit, 40, 20020 Lainate (MI) Italy

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.
 La lampe contient du mercure,
 Disposer correctement.

CAN ICES-3 (B)/NMB-3(B)
 Made in China / Fabriqué en Chine
 Bualan China S XX

日本エイスー株式会社

警告
 AVERTISSEMENT

UA-TR-002
 N214
 PS E
 M891

acer X1373WH DLP 投影机

型号 : QWX1313
 输入电压/电流 : 100-240V~ 50-60 Hz / 2.8A
 制造商 : 宏碁股份有限公司
 地址 : 新北市汐止區新台五路一段88號
 電話 : (02)2696-0099
 製造年份 : 2013
 規格 : 請參考包裝盒之標籤的規格說明
 SNID : YWW00000184

序號 : XXXXXXXXXXYYWW000018400

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

CAN ICES-3 (B)/NMB-3(B)

FC CE VCCI

Lamp(s) Contain Mercury,
 Dispose Properly.

緊急處理方法：
 洽詢買家或服務專線：
 (02)2696-0099

使用方式：請參考快速指南

生產地：中國
 S XX

警告

UA-TR-002
 N214
 PS E
 M891

<p>acer X1373WH 投影机</p> <p>型号: X1373WH 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184 序列号: XXXXXXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告 Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>	<p>acer D222D 投影机</p> <p>型号: D222D 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184 序列号: XXXXXXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告 Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>
<p>acer EV-W53H 投影机</p> <p>型号: EV-W53H 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184 序列号: XXXXXXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告 Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>	<p>acer EV-W53 投影机</p> <p>型号: EV-W53 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184 序列号: XXXXXXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告 Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>
<p>acer X1373W DLP Projector / Projecteur</p> <p>Model Number / No de Modèle: QWX1312 Input / Entrée: 100-240V~ 50-60 Hz / 2.8A Mfg. Date / Date de Fabrication: YYYY.MM SNID: YWW00000184 Serial No. / No de Série: XXXXXXXXXXXXXYYWW00001840F</p> <p>Consumo de Energía En Operación: 230,14 Wh (230,14 Wh) Acer Italy s.r.l. En modo de espera: 0,19 Wh (0,19 Wh) Via Lepetit, 40, 20020 Lainate (MI) Italy</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告 Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly. La lampe contient du mercure, Disposer correctement.</p> <p>日本エイスアー株式会社 CAN ICES-3 (B)/NMB-3(B) Made in China / Fabriqué en Chine Buatian China S XX</p>	<p>acer X1373W DLP 投影机</p> <p>型号: QWX1312 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 地址: 新北市汐止區新台五路一段88號 電話: (02)2696-0099 製造年份: 2013 規格: 請參考包裝盒之標籤的規格說明 SNID: YWW00000184 序列号: XXXXXXXXXXXXXYYWW000018400</p> <p>CAN ICES-3 (B)/NMB-3(B) 警告與注意事項: 請參考快速指南之圖解與 注意事項及保固說明書 緊急處理方法: 洽購買經銷商或服務專線: (02)2696-0099 使用方法: 請參考快速指南</p> <p>警告 Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>生產地: 中國 S XX</p>
<p>acer X1373W 投影机</p> <p>型号: X1373W 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184 序列号: XXXXXXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告 Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>	<p>acer D222 投影机</p> <p>型号: D222 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184 序列号: XXXXXXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告 Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>

acer X1273H DLP Projector / Projecteur

Model Number / No de Modèle : QNX1311
 Input / Entrée : 100-240V~ 50-60 Hz / 2.8A
 Mfg. Date / Date de Fabrication : YYYY.MM
 SNID : YWW00000184

Serial No. / No de Série : XXXXXXXXXXXXYYWW00001840F

Consumo de Energia
 En Operación: 230.14 Wh (230.14 Wh)
 En modo de espera: 0.19 Wh (0.19 Wh)

Acer Italy s.r.l.
 Via Lepetit, 40, 20020 Lainate (MI) Italy

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告
 AVERTISSEMENT

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.
 La lampe contient du mercure,
 Disposer correctement.

CAN ICES-3 (B)/NMB-3(B)
 Made in China / Fabriqué en Chine
 Buatan China

日本エイスー株式会社
 S XX

acer X1273H DLP 投影机

型号: QNX1311
 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A
 制造商: 宏碁股份有限公司
 地址: 新北市汐止區新台五路一段88號
 電話: (02)2696-0099
 製造年份: 2013
 規格: 請參考包裝盒之標籤的規格說明
 SNID : YWW00000184

序號: XXXXXXXXXXXXYYWW000018400

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

FC CE VCCI NOM

緊急處理方法:
 洽購買經銷商或服務專線:
 (02)2696-0099

使用方法: 請參考快速指南

生產地: 中國
 S XX

acer X1273H 投影机

型号: X1273H
 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A
 制造商: 宏碁股份有限公司
 製造日期: YYYY.MM
 SNID : YWW00000184

序號: XXXXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

FC CE NOM VCCI

Lamp(s) Contain Mercury, 机壳非专业人士请勿打开
 Dispose Properly.

Made in China / 中国制造 S XX

acer D212D 投影机

型号: D212D
 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A
 制造商: 宏碁股份有限公司
 製造日期: YYYY.MM
 SNID : YWW00000184

序號: XXXXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

FC CE NOM VCCI

Lamp(s) Contain Mercury, 机壳非专业人士请勿打开
 Dispose Properly.

Made in China / 中国制造 S XX

acer EV-X53H 投影机

型号: EV-X53H
 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A
 制造商: 宏碁股份有限公司
 製造日期: YYYY.MM
 SNID : YWW00000184

序號: XXXXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

FC CE NOM VCCI

Lamp(s) Contain Mercury, 机壳非专业人士请勿打开
 Dispose Properly.

Made in China / 中国制造 S XX

acer EV-S53H 投影机

型号: EV-S53H
 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A
 制造商: 宏碁股份有限公司
 製造日期: YYYY.MM
 SNID : YWW00000184

序號: XXXXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

FC CE NOM VCCI

Lamp(s) Contain Mercury, 机壳非专业人士请勿打开
 Dispose Properly.

Made in China / 中国制造 S XX

acer X1273N DLP Projector / Projecteur

Model Number / No de Modèle : QNX1329
 Input / Entrée : 100-240V~ 50-60 Hz / 2.8A
 Mfg. Date / Date de Fabrication : YYYY.MM
 SNID : YWW00000184

Serial No. / No de Série : XXXXXXXXXXXXYYWW00001840F

Consumo de Energia
 En Operación: 230.14 Wh (230.14 Wh)
 En modo de espera: 0.19 Wh (0.19 Wh)

Acer Italy s.r.l.
 Via Lepetit, 40, 20020 Lainate (MI) Italy

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告
 AVERTISSEMENT

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.
 La lampe contient du mercure,
 Disposer correctement.

CAN ICES-3 (B)/NMB-3(B)
 Made in China / Fabriqué en Chine
 Buatan China

日本エイスー株式会社
 S XX

acer X1273N DLP Proyektor

NOMOR MODEL : QNX1329
 NILAI DAYA : 100-240V~ 50-60 Hz / 2.8A
 NOMOR SERI IO : YWW00000184

NOMOR SERI : XXXXXXXXXXXXYYWW000018400

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

CAN ICES-3 (B)/NMB-3(B)

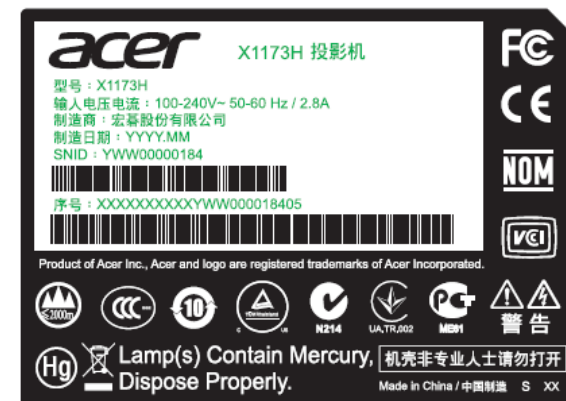
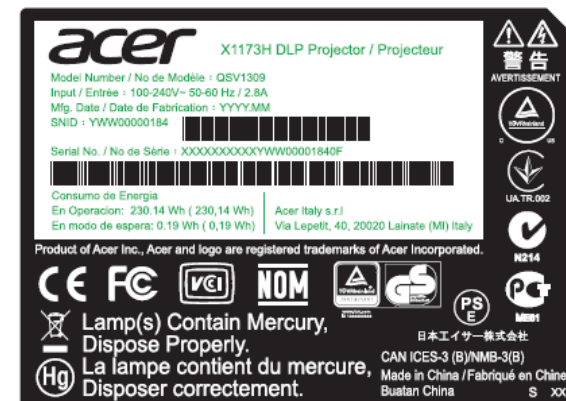
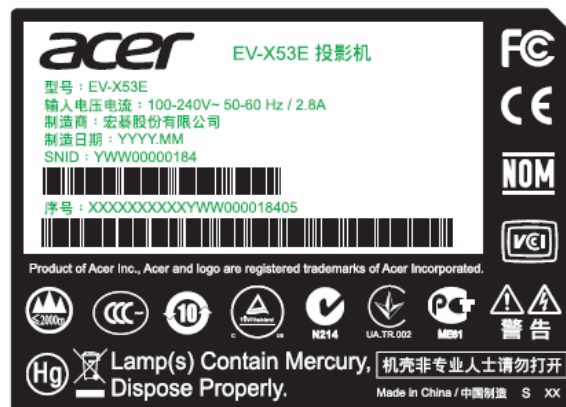
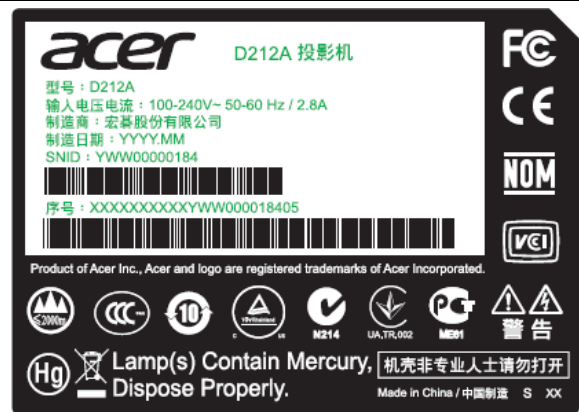
警告

FC CE VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.

机壳非专业人士请勿打开
 Made in China / Fabriqué en Chine
 Buatan China / 中国制造 / 中国製造

日本エイスー株式会社
 S XX



acer X1273 DLP Projector / Projecteur

Model Number / No de Modèle : QNX1310
 Input / Entrée : 100-240V~ 50-60 Hz / 2.8A
 Mfg. Date / Date de Fabrication : YYYY.MM
 SNID : YWW00000184

Serial No. / No de Série : XXXXXXXXXXYYWW00001840F

Consumo de Energía
 En Operación: 230.14 Wh (230.14 Wh)
 En modo de espera: 0.19 Wh (0.19 Wh)

Acer Italy s.r.l.
 Via Lepetit, 40, 20020 Lainate (MI) Italy

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告
 AVERTISSEMENT

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.
 La lampe contient du mercure,
 Disposer correctement.

日本エイスー株式会社
 CAN ICES-3 (B)/NMB-3(B)
 Made in China / Fabriqué en Chine
 Buxian China S XX

acer X1273 DLP 投影机

型號：QNX1310
 輸入電壓/電流：100-240V~ 50-60 Hz / 2.8A
 製造商：宏碁股份有限公司
 地址：新北市汐止區新台五路一段88號
 電話：(02)2696-0099
 製造年份：2013
 規格：請參考包裝盒之標籤的規格說明
 SNID : YWW00000184

序號：XXXXXXXXXXYYWW000018400

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

FC CE VCCI NOM

緊急處理方法：
 若購買經銷商或服務專線：
 (02)2696-0099
 使用方法，請參考快速指南

生產地：中國 S XX

acer X1273 投影机

型号：X1273
 输入电压电流：100-240V~ 50-60 Hz / 2.8A
 制造商：宏碁股份有限公司
 制造日期：YYYY.MM
 SNID : YWW00000184

序号：XXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.

机壳非专业人士请勿打开
 Made in China / 中国制造 S XX

acer D212 投影机

型号：D212
 输入电压电流：100-240V~ 50-60 Hz / 2.8A
 制造商：宏碁股份有限公司
 制造日期：YYYY.MM
 SNID : YWW00000184

序号：XXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.

机壳非专业人士请勿打开
 Made in China / 中国制造 S XX

acer EV-X53 投影机

型号：EV-X53
 输入电压电流：100-240V~ 50-60 Hz / 2.8A
 制造商：宏碁股份有限公司
 制造日期：YYYY.MM
 SNID : YWW00000184

序号：XXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.

机壳非专业人士请勿打开
 Made in China / 中国制造 S XX

acer V20X 投影机

型号：V20X
 输入电压电流：100-240V~ 50-60 Hz / 2.8A
 制造商：宏碁股份有限公司
 制造日期：YYYY.MM
 SNID : YWW00000184

序号：XXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.

机壳非专业人士请勿打开
 Made in China / 中国制造 S XX

acer AX302 投影机

型号：AX302
 输入电压电流：100-240V~ 50-60 Hz / 2.8A
 制造商：宏碁股份有限公司
 制造日期：YYYY.MM
 SNID : YWW00000184

序号：XXXXXXXXXXYYWW000018405

Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.

机壳非专业人士请勿打开
 Made in China / 中国制造 S XX

acer AS305 投影机

型号：AS305
 输入电压电流：100-240V~ 50-60 Hz / 2.8A
 制造商：宏碁股份有限公司
 制造日期：YYYY.MM
 SNID : YWW00000184

序号：XXXXXXXXXXYYWW000018405

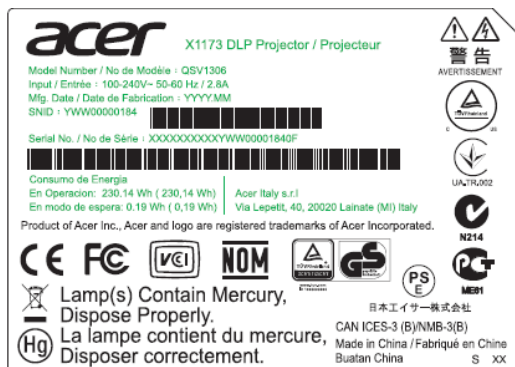
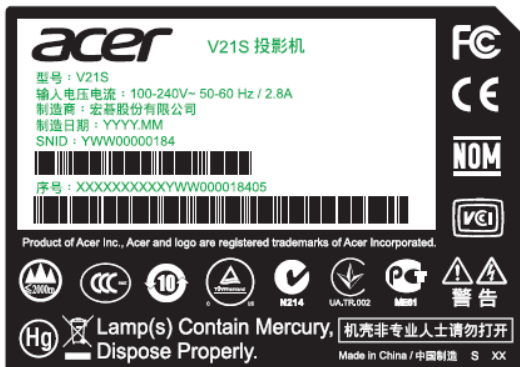
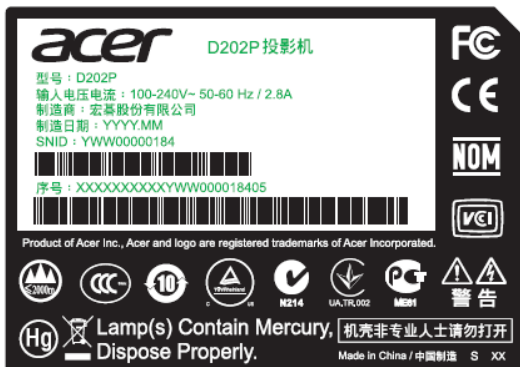
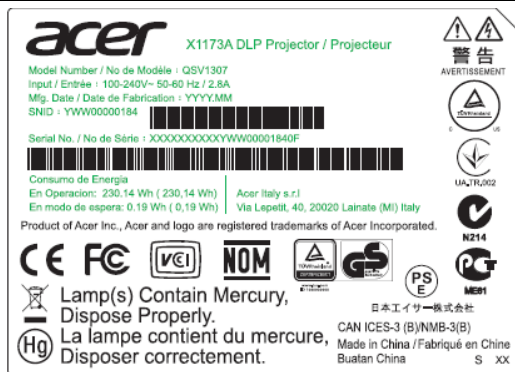
Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.

警告

CE FC VCCI NOM

Lamp(s) Contain Mercury,
 Dispose Properly.

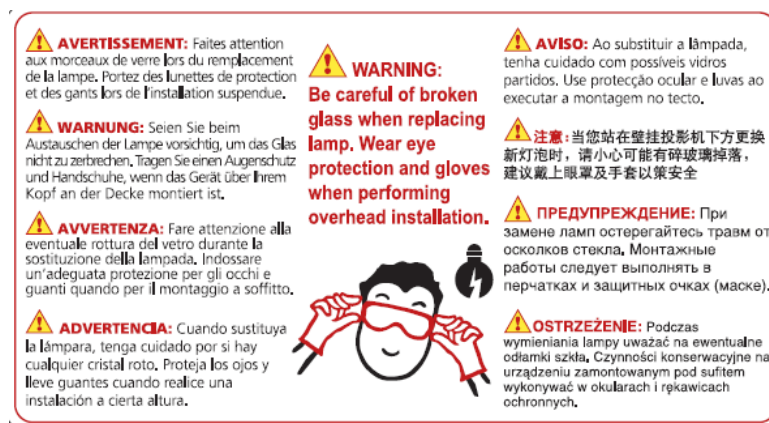
机壳非专业人士请勿打开
 Made in China / 中国制造 S XX



<p>acer X1173 投影机</p> <p>型号: X1173 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184</p> <p>序号: XXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告</p> <p>(Hg) Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>	<p>acer D202 投影机</p> <p>型号: D202 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184</p> <p>序号: XXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告</p> <p>(Hg) Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>
<p>acer EV-S53 投影机</p> <p>型号: EV-S53 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184</p> <p>序号: XXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告</p> <p>(Hg) Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>	<p>acer V20S 投影机</p> <p>型号: V20S 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184</p> <p>序号: XXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告</p> <p>(Hg) Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>
<p>acer AS303 投影机</p> <p>型号: AS303 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184</p> <p>序号: XXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告</p> <p>(Hg) Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>	<p>acer AS203 投影机</p> <p>型号: AS203 输入电压/电流: 100-240V~ 50-60 Hz / 2.8A 制造商: 宏碁股份有限公司 制造日期: YYYY.MM SNID: YWW00000184</p> <p>序号: XXXXXXXXXYYWW000018405</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告</p> <p>(Hg) Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>Made in China / 中国制造 S XX</p>
<p>acer X1171 DLP Projector / Projecteur</p> <p>Model Number / No de Modele: QSV1337 Input / Entrée: 100-240V~ 50-60 Hz / 2.8A Mfg. Date / Date de Fabrication: YYYY.MM SNID: YWW00000184</p> <p>Serial No. / No de Série: XXXXXXXXXYYWW00001840F</p> <p>Consumo de Energía En Operación: 230.14 Wh (230.14 Wh) En modo de espera: 0.19 Wh (0.19 Wh)</p> <p>Acer Italy s.r.l. Via Lepetit, 40, 20020 Lainate (MI) Italy</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告</p> <p>(Hg) Lamp(s) Contain Mercury, 机壳非专业人士请勿打开 Dispose Properly.</p> <p>日本エイスー株式会社 CAN ICES-3 (B)NMB-3(B) Made in China / Fabriqué en Chine Bustan China S XX</p>	<p>acer X1171 DLP 投影机</p> <p>型號: QSV1337 輸入電壓/電流: 100-240V~ 50-60 Hz / 2.8A 製造商: 宏碁股份有限公司 地址: 新北市汐止區新台五路一段88號 電話: (02)2696-0099 製造年份: 2013 規格: 請參考包裝盒之標籤的規格說明 SNID: YWW00000184</p> <p>序號: XXXXXXXXXYYWW000018400</p> <p>Product of Acer Inc., Acer and logo are registered trademarks of Acer Incorporated.</p> <p>警告</p> <p>緊急處理方法: 洽購買經銷商或服務專線: (02)2696-0099 使用方法: 請參考快速指南</p> <p>生產地: 中國 S XX</p>



For Lamp:



Test item particulars:	
Equipment mobility.....:	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input checked="" type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in
Connection to the mains	<input checked="" type="checkbox"/> pluggable equipment <input checked="" type="checkbox"/> type A <input type="checkbox"/> type B <input type="checkbox"/> permanent connection <input checked="" type="checkbox"/> detachable power supply cord <input type="checkbox"/> non-detachable power supply cord <input type="checkbox"/> not directly connected to the mains
Operating condition.....:	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	<input checked="" type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other:
Mains supply tolerance (%) or absolute mains supply values	+10%, -10%
Tested for IT power systems	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
IT testing, phase-phase voltage (V)	230V
Class of equipment	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	20
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	IPX0
Altitude during operation (m)	Up to 3000
Altitude of test laboratory (m)	Less than 2000
Mass of equipment (kg)	Approximately 1.9kg
Possible test case verdicts:	
- test case does not apply to the test object	N/A
- test object does meet the requirement.....	P (Pass)
- test object does not meet the requirement.....	F (Fail)
Testing:	
Date of receipt of test item	September, 2013
Date(s) of performance of tests	September, 2013
General remarks:	
<p>The test results presented in this report relate only to the object tested.</p> <p>This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> <p>"(see Enclosure #)" refers to additional information appended to the report.</p> <p>"(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</p>	

Manufacturer's Declaration per sub-clause 6.2.5 of IEC60950:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....:

☒ Yes
☐ Not applicable

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) : 1. Qisda Corporation
 157, Shan-Ying Road, Gueishan, Taoyuan 333, Taiwan
 2. Qisda Optronics (Suzhou) Co., Ltd.
 No. 169, Zhujiang Road, New District, Suzhou, Jiangsu 215129, P.R. China

General product information:

The equipment is Class I DLP Projector for use in scope of information technology equipment.

Model Differences

All models are identical with each other except for model designation.


Engineering Considerations

- The product was submitted and tested for use at the **maximum ambient temperature (T_{ma})** permitted by the manufacturer's specification of: 40°C
- The means of connection to the mains supply is **Pluggable Type A**.
- The product is intended for use on the following **power systems**: TN / IT.
- The equipment **disconnect device** is considered to be: Appliance Inlet.
- The following accessible locations are within a **limited current circuit** (see subclause 2.4): Bridging Cap. (CY610, CY611).
- The following circuit locations were investigated as a **limited power source** (see subclause 2.5): outputs of all output data ports.
- The following **transformers** are provided (See subclause 1.5.4):
 - o Double/Reinforced insulation: T651
 - o Functional insulation: other than above mentioned.
- The following **capacitors** bridging insulation (See subclause 1.5.6):
 - o Double/Reinforced insulation: CY610, CY611
 - o Basic insulation: CY601, CY602, CY603,
 - o Supplementary insulation: None
 - o Across mains conductors: CX601
 - o Functional insulation: other than above mentioned.
- The following **solid insulation** are provided (See subclause 2.10.5):
 - o Reinforced insulation: Photo Couplers (see table 1.5.1 for details)
 - o Basic insulation: None
 - o Supplementary insulation: Tubing of all secondary wire.
 - o Functional insulation: other than above mentioned.
- The following parts consist of the protective earthing (see subclause 2.6):
 - o Protective earthing conductor: In power supply cord.
 - o Protective bonding conductor: connections of the copper trace on PCB and the metal chassis.
- The following parts are **protective earthing terminals** (See subclause 2.6.4): the earthing terminal in the appliance inlet.
- The following enclosures are provided:
 - o Fire enclosure: the external plastic enclosure.
 - o Mechanical and Electrical enclosure: the external plastic enclosure.
- The protective bonding conductors of non-standard protective bonding constructions for North America, evaluation shall be considered during national approval.

Additional Information

- The **power supply unit** and **ballast board** used in the product is not a certified product. Hence, compliance has been evaluated in this report.
- The equipment is for use in **multimedia systems** and was investigated additionally to IEC GUIDE 112.
- The Label in Copy of marking plate is a draft of an artwork pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.
- The test samples were pre-production sample without serial numbers.
- Special national conditions for J60950-1(H22):2010
Per client's request, supplement the special national conditions for J60950-1(H22):2010 and J3000 (H21):2009 to present test report. Described as following items:
a) Power cord set for Japanese market is added and AC plug adaptor is optional used and the equipment is consider as Class 0I or Class I equipment.
b) Considered further Japanese technical requirements J60950-1 (H22)

Markings and Instructions

- Fuse Identification (See subclause 1.7.6): F601 T6.3A/250V
- (IEC 60417-5009) for the stand-by condition. (See subclause 1.7.8.3)
-  (IEC 60417-5041) for "unintentional contact with such a part is unlikely" of the Lamp box.(See subclause 4.5.4)

Abbreviations used in the report:

- normal conditions	N.C.	- single fault conditions	S.F.C
- functional insulation	OP	- basic insulation	BI
- double insulation	DI	- supplementary insulation	SI
- between parts of opposite polarity	BOP	- reinforced insulation	RI
- distance through insulation	Dti		
- creepage distance	dcr		
Indicate used abbreviations (if any)			

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		P
1.5	Components		P
1.5.1	General	See below.	P
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	<p>Components certified to IEC standards and/or their harmonized standards, are used within their ratings and are checked for correct application.</p> <p>Non-certified components are checked for correct application, used within their ratings, tested as part of the equipment and subjected to applicable tests of the component standard.</p> <p>Components, which no relevant IEC-Standard exists, are used within their ratings and are tested under the conditions occurring in the equipment.</p>	P
1.5.3	Thermal controls	Thermostat is an approved component. See Annex K.	P
1.5.4	Transformers	Transformers complied with the relevant requirements.	P
1.5.5	Interconnecting cables		N/A
1.5.6	Capacitors bridging insulation	Capacitors used in accordance with their rating and complied with subclasses of IEC 60384-14 with at least 21 days damp heat test.	P
1.5.7	Resistors bridging insulation	See below.	P
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Resistor bridging functional insulation only.	P
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N/A
1.5.8	Components in equipment for IT power systems	(see appended table 1.5.1.)	P
1.5.9	Surge suppressors	Approved component used.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9.1	General	See table 1.5.1.	P
1.5.9.2	Protection of VDRs	By current fuse.	P
1.5.9.3	Bridging of functional insulation by a VDR		P
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A

1.6	Power interface		P
1.6.1	AC power distribution systems	Considered.	P
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment		N/A
1.6.4	Neutral conductor	Neutral is insulated from earth and body throughout the equipment and components rated accordingly. (see also 1.5.8).	P

1.7	Marking and instructions		P
1.7.1	Power rating and identification markings	The power rating marking is visible after the equipment has been installed as in normal use.	P
1.7.1.1	Power rating marking	See below.	P
	Multiple mains supply connections.....:		N/A
	Rated voltage(s) or voltage range(s) (V)	See copy of marking plate.	P
	Symbol for nature of supply, for d.c. only		N/A
	Rated frequency or rated frequency range (Hz)	See copy of marking plate.	P
	Rated current (mA or A)	See copy of marking plate.	P
1.7.1.2	Identification markings	See below.	P
	Manufacturer's name or trade-mark or identification mark	See copy of marking plate.	P
	Model identification or type reference	See copy of marking plate.	P
	Symbol for Class II equipment only	Class I equipment.	N/A
	Other markings and symbols	Other markings and symbols do not give rise to misunderstanding.	P
1.7.2	Safety instructions and marking	See below.	P
1.7.2.1	General	Instructions are available.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.2	Disconnect devices	Appliance Inlet.	P
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT power distribution systems		N/A
1.7.2.5	Operator access with a tool		N/A
1.2.7.6	Ozone	Remark: correct subclause reference is 1.7.2.6.	N/A
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment		N/A
	Methods and means of adjustment; reference to installation instructions		N/A
1.7.5	Power outlets on the equipment		N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	See General product information - Markings and Instructions	P
1.7.7	Wiring terminals	See below.	P
1.7.7.1	Protective earthing and bonding terminals	Appliance inlet is provided.	P
1.7.7.2	Terminals for a.c. mains supply conductors	Appliance inlet is provided.	P
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators	See below.	P
1.7.8.1	Identification, location and marking	The function of indicators and controls is clearly identified.	P
1.7.8.2	Colours		N/A
1.7.8.3	Symbols according to IEC 60417	See General product information - Markings and Instructions	P
1.7.8.4	Markings using figures		N/A
1.7.9	Isolation of multiple power sources		N/A
1.7.10	Thermostats and other regulating devices		N/A
1.7.11	Durability	The marking plate has no curling and is not able to be removed easily.	P
1.7.12	Removable parts	The required marking is not placed on removable parts.	P
1.7.13	Replaceable batteries		N/A
	Language(s)		—
1.7.14	Equipment for restricted access locations.....		N/A
2	PROTECTION FROM HAZARDS		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.1	Protection from electric shock and energy hazards		P
2.1.1	Protection in operator access areas	Unless otherwise indicated in 2.1.1.1, all parts are safe to access by operator.	P
2.1.1.1	Access to energized parts	Compliance of protection against contact with hazardous energized parts checked.	P
	Test by inspection	Complied.	P
	Test with test finger (Figure 2A)	No contact.	P
	Test with test pin (Figure 2B)	No contact when applied to openings in external electrical enclosure.	P
	Test with test probe (Figure 2C)		N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring		N/A
	Working voltage (V _{peak} or V _{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards	No parts at hazardous energy level in operator access area.	P
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment	Voltage decay measurement was conducted with an oscilloscope having an input impedance of 100 MΩ.	P
	Measured voltage (V); time-constant (s)	See appended table 2.1.1.7.	—
2.1.1.8	Energy hazards – d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply ..		N/A
	b) Internal battery connected to the d.c. mains supply		N/A
2.1.1.9	Audio amplifiers		P
2.1.2	Protection in service access areas		N/A
2.1.3	Protection in restricted access locations		N/A

2.2	SELV circuits		P
2.2.1	General requirements	See below.	P
2.2.2	Voltages under normal conditions (V)	See appended table 2.2.	P
2.2.3	Voltages under fault conditions (V)	See appended table 2.2.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.2.4	Connection of SELV circuits to other circuits :	In compliance with 1.5.6. 2.2.2, 2.2.3 and 2.4.3.	P
-------	---	---	---

2.3	TNV circuits		N/A
2.3.1	Limits		N/A
	Type of TNV circuits..... :		—
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions :		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed :		—
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed :		—
2.3.5	Test for operating voltages generated externally		N/A

2.4	Limited current circuits		P
2.4.1	General requirements	The limits of 2.4.2 were not exceeded under normal operating conditions. (for bridging capacitor only)	P
2.4.2	Limit values	See below.	P
	Frequency (Hz)..... :	See appended table 2.4.2	—
	Measured current (mA) :	See appended table 2.4.2	—
	Measured voltage (V)..... :	See appended table 2.4.2	—
	Measured circuit capacitance (nF or μ F) :	See table 1.5.1 for bridging capacitors.	—
2.4.3	Connection of limited current circuits to other circuits	Complied.	P

2.5	Limited power sources		P
	a) Inherently limited output	All outputs of data ports complied with table 2.5.	P
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)	See appended table 2.5.	—
	Current rating of overcurrent protective device (A) ..		—
	Use of integrated circuit (IC) current limiters		N/A

2.6	Provisions for earthing and bonding		P
2.6.1	Protective earthing	The relevant parts connected to the main protective earthing terminal reliably. Complied with 2.6.3.	P
2.6.2	Functional earthing	Functional earthing circuit is separated from parts at hazardous voltages by double (or reinforced) insulation. Green-and-yellow color combination was not used for functional earthing conductors.	P
2.6.3	Protective earthing and protective bonding conductors	See below.	P
2.6.3.1	General	See below.	P
2.6.3.2	Size of protective earthing conductors	Complied with the minimum sizes in table 3B.	P
	Rated current (A), cross-sectional area (mm ²), AWG	2.8A, 0.75 mm ² , 18AWG	—
2.6.3.3	Size of protective bonding conductors	See 2.6.3.4	P
	Rated current (A), cross-sectional area (mm ²), AWG		—
	Protective current rating (A), cross-sectional area (mm ²), AWG.....		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min)	See appended table 2.6.3.4.	P
2.6.3.5	Colour of insulation	The color combination green-and-yellow is used.	P
2.6.4	Terminals	See General product information.	P
2.6.4.1	General	See below.	P
2.6.4.2	Protective earthing and bonding terminals	The earthing terminal in the appliance inlet is regarded as the main protective earthing terminal.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated current (A), type, nominal thread diameter (mm)..... :		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing	See below.	P
2.6.5.1	Interconnection of equipment	The equipment has its own earthing connection. Any other units connected to it via the output shall be provided SELV only.	P
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switch or overcurrent protective device provided in earthing conductors and protective bonding conductors.	P
2.6.5.3	Disconnection of protective earth	Appliance inlet provided as disconnection device.	P
2.6.5.4	Parts that can be removed by an operator	The protective earthing connection is made earlier and broken later than the supply connection.	P
2.6.5.5	Parts removed during servicing	The relevant hazard is removed at the same time the protective earthing connections is removed for servicing.	P
2.6.5.6	Corrosion resistance	No combination above the line in annex J is used.	P
2.6.5.7	Screws for protective bonding	Self-tapping and spaced thread screws are not used to provide protective bonding. At least two screws are used for each connection.	P
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A
2.7	Overcurrent and earth fault protection in primary circuits		P
2.7.1	Basic requirements	Protection against overcurrents and short-circuits is provided as an integral part of the equipment. Protection against earth faults is provided as part of the building installation.	P
	Instructions when protection relies on building installation		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.2	Faults not simulated in 5.3.7	Considered.	P
2.7.3	Short-circuit backup protection	The building installation is considered as providing short-circuit backup protection.	P
2.7.4	Number and location of protective devices :	The protective device is located adequately therefore able to interrupt the overcurrent flowing in any possible fault current path.	P
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel :		N/A
2.8	Safety interlocks		P
2.8.1	General principles	Safety interlock is provided.	P
2.8.2	Protection requirements	The test finger cannot contact with hazardous parts.	P
2.8.3	Inadvertent reactivation	The test finger cannot operate the safety interlock.	P
2.8.4	Fail-safe operation	The moving mechanical parts are in compliance with 2.8.5 and 2.8.7.	P
	Protection against extreme hazard	10000 operating cycles without failure.	P
2.8.5	Moving parts	The override system complied with the requirements.	P
2.8.6	Overriding	The switch conforms to IEC 61058-1 with evaluation for 10000 operating cycles in accordance with 7.1.4.4 of IEC 61058-1.	P
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm) :		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test	Not overstressed.	P
2.8.8	Mechanical actuators		N/A
2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic materials are not used.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.9.2	Humidity conditioning	Natural rubber, asbestos or hygroscopic materials are not used. Test performed on all sources of photo coupler (location no. see table 1.5.1) and transformer (T651).	P
	Relative humidity (%), temperature (°C) :	95%, 40°C.	—
2.9.3	Grade of insulation	Basic, supplementary, double insulation, reinforced or functional insulation.	P
2.9.4	Separation from hazardous voltages	See below.	P
	Method(s) used :	Method 1.	—

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General	See below.	P
2.10.1.1	Frequency :		P
2.10.1.2	Pollution degrees :	2	P
2.10.1.3	Reduced values for functional insulation	See 5.3.4.	P
2.10.1.4	Intervening unconnected conductive parts		N/A
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses	See 2.10.3.5.	P
2.10.2	Determination of working voltage	See below.	P
2.10.2.1	General	Considered.	P
2.10.2.2	RMS working voltage	See appended table 2.10.2.	P
2.10.2.3	Peak working voltage	See appended table 2.10.2.	P
2.10.3	Clearances	See below.	P
2.10.3.1	General	Annex F considered.	P
2.10.3.2	Mains transient voltages	See below.	P
	a) AC mains supply :	2500Vpk considered.	P
	b) Earthed d.c. mains supplies :		N/A
	c) Unearthed d.c. mains supplies :		N/A
	d) Battery operation :		N/A
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.4	Clearances in secondary circuits	See 5.3.4.	N/A
2.10.3.5	Clearances in circuits having starting pulses	For lamp, see appended table 2.10.3 and 2.10.4.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.6	Transients from a.c. mains supply		N/A
2.10.3.7	Transients from d.c. mains supply		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems		N/A
2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network :		N/A
2.10.4	Creepage distances	See below.	P
2.10.4.1	General	Considered.	P
2.10.4.2	Material group and comparative tracking index	Material group IIIb assumed.	P
	CTI tests	See above.	—
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	P
2.10.5	Solid insulation	Complied with 2.10.5.2 to 2.10.5.14 and 5.2.	P
2.10.5.1	General	See below.	P
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	P
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices		P
2.10.5.5	Cemented joints		N/A
2.10.5.6	Thin sheet material – General	Considered.	P
2.10.5.7	Separable thin sheet material	Reinforced insulation.	P
	Number of layers (pcs)	3 or 2 layers.	—
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure	Electric strength test applied to each combination of two layers together or one layer only.	P
	Electric strength test	(see appended table 5.2)	—
2.10.5.11	Insulation in wound components		P
2.10.5.12	Wire in wound components	Approved component used.	P
	Working voltage		N/A
	a) Basic insulation not under stress		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	b) Basic, supplementary, reinforced insulation		P
	c) Compliance with Annex U	Complied with annex U, three layer.	P
	Two wires in contact inside wound component; angle between 45° and 90°	Insulating sleeving provided.	P
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test		—
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage		N/A
	- Basic insulation not under stress		N/A
	- Supplementary, reinforced insulation		N/A
2.10.6	Construction of printed boards	See below.	P
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	P
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs).....		N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling	Certified photo coupler used.	P
2.10.10	Test for Pollution Degree 1 environment and insulating compound	Certified photo coupler used.	P
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A
3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.1.1	Current rating and overcurrent protection	All internal wires are UL recognized wiring which is PVC insulated, rated VW-1, minimum 80°C. Internal wiring gauge is suitable for current intended to be carried.	P
3.1.2	Protection against mechanical damage	The wireways (including holes) are smooth and free from sharp edges.	P
3.1.3	Securing of internal wiring	No excessive strain on wire and on terminal connections, loosening of terminal connections and damage of conductor insulation.	P
3.1.4	Insulation of conductors		N/A
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure	The screws are not made of insulating material. They engage at least two complete threads into the metal part.	P
3.1.7	Insulating materials in electrical connections	Sufficient resilience is provided.	P
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors	See below.	P
	10 N pull test	The clearances and creepages are not reduced below required in 2.10.	P
3.1.10	Sleeving on wiring	Not used.	N/A

3.2	Connection to a mains supply		P
3.2.1	Means of connection	See below.	P
3.2.1.1	Connection to an a.c. mains supply	An appliance inlet provided.	P
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm)		—
3.2.4	Appliance inlets	The appliance inlet complied with IEC 60320-1; the connector inserted without difficulty and not supporting the equipment on a flat surface.	P
3.2.5	Power supply cords	See below.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1	AC power supply cords	The power supply cord is approved components and has conductors with adequate cross-sectional areas.	P
	Type	(see appended table 1.5.1)	—
	Rated current (A), cross-sectional area (mm ²), AWG	2.8A, 0.75 mm ² , 18AWG	—
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N)		—
	Longitudinal displacement (mm)		—
3.2.7	Protection against mechanical damage	No sharp points or cutting edges within or on the surface of the equipment or at the inlet opening or inlet bushing.	P
3.2.8	Cord guards		N/A
	Diameter or minor dimension D (mm); test mass (g)		—
	Radius of curvature of cord (mm)		—
3.2.9	Supply wiring space		N/A
3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²)		—
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type, nominal thread diameter (mm)		—
3.3.6	Wiring terminal design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A
3.4	Disconnection from the mains supply		P
3.4.1	General requirement	Disconnect device provided.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.4.2	Disconnect devices	The disconnect device is close to the incoming supply. See General product information.	P
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords	No isolating switches fitted in flexible cords.	P
3.4.6	Number of poles - single-phase and d.c. equipment	The disconnect device disconnects both poles simultaneously.	P
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A

3.5	Interconnection of equipment		P
3.5.1	General requirements	See below.	P
3.5.2	Types of interconnection circuits	SELV circuit and Limited current circuit.	P
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment	All data ports are data transmitted no voltage output, complied with sub-clause 2.5.	P

4	PHYSICAL REQUIREMENTS		P
4.1	Stability		P
	Angle of 10°	The equipment does not fall over. (test by client's request)	P
	Test force (N)		N/A

4.2	Mechanical strength		P
4.2.1	General	After following tests, the sample continues to complied relevant requirements.	P
	Rack-mounted equipment.		N/A
4.2.2	Steady force test, 10 N	Applied to parts other than in 4.2.3 and 4.2.4.	P
4.2.3	Steady force test, 30 N		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.4	Steady force test, 250 N	Applied to outer enclosure. .	P
4.2.5	Impact test	Applied to all external surfaces of enclosure except following parts: Lens.	P
	Fall test		P
	Swing test		P
4.2.6	Drop test; height (mm)		N/A
4.2.7	Stress relief test	At 93.7°C.	P
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified		N/A
4.2.9	High pressure lamps	The mechanical enclosure provides adequate strength.	P
4.2.10	Wall or ceiling mounted equipment; force (N)	The unit was subjected to the load test. An additional force of 56 N (3 times the mass of the unit) was applied to the unit plus the ceiling-mounting accessory and sustained for 1 min. The unit withstood the load test without damages or breaks.	P

4.3	Design and construction		P
4.3.1	Edges and corners	All edges or corners accessible to operator are rounded and smoothed.	P
4.3.2	Handles and manual controls; force (N).....		N/A
4.3.3	Adjustable controls		N/A
4.3.4	Securing of parts	No loosen.	P
4.3.5	Connection by plugs and sockets	No misconnection likely to create a hazard.	P
4.3.6	Direct plug-in equipment		N/A
	Torque		—
	Compliance with the relevant mains plug standard		N/A
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries		N/A
	- Overcharging of a rechargeable battery		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
4.3.9	Oil and grease		N/A
4.3.10	Dust, powders, liquids and gases		N/A
4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids		N/A
	Quantity of liquid (l)		N/A
	Flash point (°C)		N/A
4.3.13	Radiation	See below.	P
4.3.13.1	General	See below.	P
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg)		—
	Measured high-voltage (kV)		—
	Measured focus voltage (kV)		—
	CRT markings		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	The spectrum is not having emission predominantly in the spectrum 180nm to 400nm, see below for the total UV's irradiance of lamp with/without UV-cut filter: OSRAM's lamp p/n P-VIP 180/08E20.8 with severe condition of w/o filter: 11.1%. The lamp is not an UV lamp.	P
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation		N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	See below.	P
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class		—
4.3.13.5.2	Light emitting diodes (LEDs)	The following parts are considered complied without tests: Indicating lights. Optocouplers.	P
4.3.13.6	Other types		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.4	Protection against hazardous moving parts		P
4.4.1	General	The rotating part of the build-in DC fans and color wheel motor are protected by the enclosure, which considered no accessible to the user.	P
4.4.2	Protection in operator access areas	For the DC Fan located adjacent to lamp compartment was not accessible when tested with test finger.	P
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations	Not limited for restricted access locations.	N/A
4.4.4	Protection in service access areas	Unintentional contact with the moving parts of the DC fan is unlikely during servicing operation.	P
4.4.5	Protection against moving fan blades		N/A
4.4.5.1	General		N/A
	Not considered to cause pain or injury. a).....:		N/A
	Is considered to cause pain, not injury. b)		N/A
	Considered to cause injury. c)		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning		N/A
4.5	Thermal requirements		P
4.5.1	General	No exceeding temperature.	P
4.5.2	Temperature tests	(See appended table 4.5)	P
	Normal load condition per Annex L	(See Annex L)	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat	Phenolic materials accepted without further testing. Other material see appended table 4.5.5.	P
4.6	Openings in enclosures		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.6.1	Top and side openings	See below.	P
	Dimensions (mm):	(see appended table)	—
4.6.2	Bottoms of fire enclosures	See below.	P
	Construction of the bottom, dimensions (mm) ..:	(see appended table)	—
4.6.3	Doors or covers in fire enclosures	See sub-clause 2.8.	P
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm):		—
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks).....:		—

4.7	Resistance to fire		P
4.7.1	Reducing the risk of ignition and spread of flame	See below.	P
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	P
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	See below.	P
4.7.2.1	Parts requiring a fire enclosure	Following parts require a fire enclosure: - Components in primary circuits - Components in secondary circuits supplied by power source that exceed the limits specified in 2.5. - Insulating wiring.	P
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		P
4.7.3.1	General	Those components are mounted on V-1 material and separated from material of a class lower than V-1 by at solid barrier of V-1 material.	P
4.7.3.2	Materials for fire enclosures	5V material used for plastic enclosure, details see appended table 1.5.1..	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.3	Materials for components and other parts outside fire enclosures	Flammability class HB or better.	P
4.7.3.4	Materials for components and other parts inside fire enclosures	The material is made of V-2 (or HF-2) material.	P
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		P
5.1.1	General	See sub-clauses 5.1.2 to 5.1.7.	P
5.1.2	Configuration of equipment under test (EUT)	See below.	P
5.1.2.1	Single connection to an a.c. mains supply	Treated as a single piece of equipment.	P
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Test circuit in Figure 5A used.	P
5.1.4	Application of measuring instrument	Measuring instruments as in annex D used.	P
5.1.5	Test procedure	Applied.	P
5.1.6	Test measurements	See appended table 5.1.	P
	Supply voltage (V)	+10% of the rated voltage.	—
	Measured touch current (mA)	See appended table 5.1.	—
	Max. allowed touch current (mA)	See appended table 5.1.	—
	Measured protective conductor current (mA)		—
	Max. allowed protective conductor current (mA)...		—
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A
	Supply voltage (V)		—
	Measured touch current (mA)		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Max. allowed touch current (mA) :		—
5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports :		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A

5.2	Electric strength		P
5.2.1	General	(see appended table 5.2) All test voltages were applied for 1 minute in the chamber after the humidity test of 2.9 and in warm conditions after the hating test of 4.5. No isolation breakdown was observed. The transformer manufactured by each factories passed the test.	P
5.2.2	Test procedure	Table 5B used.	P

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	(see appended Annex B)	P
5.3.3	Transformers	(see appended Annex C)	P
5.3.4	Functional insulation..... :	Functional insulation complied with the requirements c).	P
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE :	See appended table 5.3.	N/A
5.3.7	Simulation of faults	Audio function operated at maximum volume output with 1kHz sine wave signal during the test.	P
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	(see appended table)	P
5.3.9.1	During the tests	No fire propagated beyond the equipment, no molten metal emitted and no deformation of enclosure.	P
5.3.9.2	After the tests	Electric strength test made.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A
	Supply voltage (V)		—
	Current in the test circuit (mA)		—
6.1.2.2	Exclusions		N/A
6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1	Separation requirements		N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A
6.3	Protection of the telecommunication wiring system from overheating		N/A
	Max. output current (A)		—
	Current limiting method		—
7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
7.1	General		N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A
A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples		—
	Wall thickness (mm)		—
A.1.2	Conditioning of samples; temperature (°C)		N/A
A.1.3	Mounting of samples		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D		—
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N/A
A.2.1	Samples, material		—
	Wall thickness (mm)		—
A.2.2	Conditioning of samples; temperature (°C)		N/A
A.2.3	Mounting of samples		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C		—
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		P
B.1	General requirements	See below.	P
	Position	DC motor of color wheel.	—
	Manufacturer	(see appended table 1.5.1)	—
	Type	(see appended table 1.5.1)	—
	Rated values	(see appended table 1.5.1)	—
B.2	Test conditions	Considered, on the bench.	P
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days)		—
	Electric strength test: test voltage (V)		—
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V)		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	General	See below.	P
B.7.2	Test procedure	B.7.3 alternative test procedure used.	N/A
B.7.3	Alternative test procedure	See appended table 5.3 for test result.	P
B.7.4	Electric strength test; test voltage (V)		N/A
B.8	Test for motors with capacitors		N/A
B.9	Test for three-phase motors		N/A
B.10	Test for series motors		N/A
	Operating voltage (V)		—

C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		P
	Position	Refer to appended table 1.5.1	—
	Manufacturer	Refer to appended table 1.5.1	—
	Type	Refer to appended table 1.5.1	—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated values	Refer to appended table 1.5.1	—
	Method of protection	Overcurrent protection.	—
C.1	Overload test	(see appended table 5.3)	P
C.2	Insulation	(see appended table 5.2)	P
	Protection from displacement of windings	See appended table C.2	P
D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		P
D.1	Measuring instrument		P
D.2	Alternative measuring instrument		N/A
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		P
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		P
G.1	Clearances		P
G.1.1	General		P
G.1.2	Summary of the procedure for determining minimum clearances	See below	P
G.2	Determination of mains transient voltage (V)	2500V considered.	P
G.2.1	AC mains supply	420V peak considered.	P
G.2.2	Earthed d.c. mains supplies		N/A
G.2.3	Unearthed d.c. mains supplies		N/A
G.2.4	Battery operation		N/A
G.3	Determination of telecommunication network transient voltage (V)		N/A
G.4	Determination of required withstand voltage (V)	According a1) Rule 2): Working voltage + mains transient voltage – AC mains supply voltage = required withstand voltage.	P
G.4.1	Mains transients and internal repetitive peaks		N/A
G.4.2	Transients from telecommunication networks		N/A
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.5	Measurement of transient voltages (V)		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
G.6	Determination of minimum clearances	See table 2.10.3 and 2.10.4.	P
H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		P
	Metal(s) used	Metals which the combination electrochemical potential is less than 0.6V.	—
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		P
K.1	Making and breaking capacity	Approved component used, see table 1.5.1.	P
K.2	Thermostat reliability; operating voltage (V)		N/A
K.3	Thermostat endurance test; operating voltage (V)		N/A
K.4	Temperature limiter endurance; operating voltage (V)		N/A
K.5	Thermal cut-out reliability		P
K.6	Stability of operation		P
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		P
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment	See Summary of testing.	P
M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.1	Introduction		N/A
M.2	Method A		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.3	Method B		N/A
M.3.1	Ringing signal		N/A
M.3.1.1	Frequency (Hz)		—
M.3.1.2	Voltage (V)		—
M.3.1.3	Cadence; time (s), voltage (V)		—
M.3.1.4	Single fault current (mA)		—
M.3.2	Tripping device and monitoring voltage		N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A
M.3.2.3	Monitoring voltage (V)		N/A
N	ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A
P	ANNEX P, NORMATIVE REFERENCES		—
Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		P
	a) Preferred climatic categories	See table 1.5.1.	P
	b) Maximum continuous voltage	See table 1.5.1.	P
	c) Pulse current	See table 1.5.1.	P
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
			—
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		P
		See table 1.5.1.	—
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		P
V.1	Introduction	Considered.	P
V.2	TN power distribution systems	Considered.	P
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
X.1	Determination of maximum input current		N/A
X.2	Overload test procedure		N/A
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Y.1	Test apparatus		N/A
Y.2	Mounting of test samples		N/A
Y.3	Carbon-arc light-exposure apparatus		N/A
Y.4	Xenon-arc light exposure apparatus		N/A
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		P
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
BB	ANNEX BB, CHANGES IN THE SECOND EDITION		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
CC	ANNEX CC, Evaluation of integrated circuit (IC) current limiters		N/A
CC.1	General		N/A
CC.2	Test program 1.....:		N/A
CC.3	Test program 2.....:		N/A
DD	ANNEX DD, Requirements for the mounting means of rack-mounted equipment		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N.....:		N/A
DD.3	Mechanical strength test, 250N, including end stops.....:		N/A
DD.4	Compliance.....:		N/A
EE	ANNEX EE, Household and home/office document/media shredders		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols.....:		N/A
	Information of user instructions, maintenance and/or servicing instructions.....:		N/A
EE.3	Inadvertent reactivation test.....:		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A
	Use of markings or symbols.....:		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A)		N/A
	Test with wedge probe (Figure EE1 and EE2)		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹	
Plastic material Enclosure (front)	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	LN-2520(##)	5VB, 125°C, thickness 2.0mm min	UL 94	UL	
	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	MN-3600H(#)	5VB, 95°C min, thickness 2.0mm min	UL 94	UL	
	LG CHEMICAL LTD	LUPOY EF- 1006F(m)	5VB, 115°C min, thickness 2.0mm min	UL 94	UL	
	KINGFA SCI&TECH CO LTD	JH960 HT (M1) (sr)	5VB, 75°C min, thickness 2.0mm min	UL 94	UL	
	STYRON (HONG KONG) LTD	Celex 3600 HP(b)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL	
	STYRON (HONG KONG) LTD	EMERGE PC 8600 HP(h)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL	
Plastic material Enclosure (bottom)	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	LN-2520(##)	5VB, 125°C, thickness 2.0mm min	UL 94	UL	
	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	MN-3600H(#)	5VB, 95°C min, thickness 2.0mm min	UL 94	UL	
	LG CHEMICAL LTD	LUPOY EF- 1006F(m)	5VB, 115°C min, thickness 2.0mm min	UL 94	UL	
	KINGFA SCI&TECH CO LTD	JH960 HT (M1) (sr)	5VB, 75°C min, thickness 2.0mm min	UL 94	UL	

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
	STYRON (HONG KONG) LTD	Celex 3600 HP(b)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
	STYRON (HONG KONG) LTD	EMERGE PC 8600 HP(h)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
Plastic material Enclosure (Top)	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	LN-2520(##)	5VB, 125°C, thickness 2.0mm min	UL 94	UL
	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	MN-3600H(#)	5VB, 95°C min, thickness 2.0mm min	UL 94	UL
	LG CHEMICAL LTD	LUPOY EF- 1006F(m)	5VB, 115°C min, thickness 2.0mm min	UL 94	UL
	KINGFA SCI&TECH CO LTD	JH960 HT (M1) (sr)	5VB, 75°C min, thickness 2.0mm min	UL 94	UL
	STYRON (HONG KONG) LTD	Celex 3600 HP(b)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
	STYRON (HONG KONG) LTD	EMERGE PC 8600 HP(h)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
Plastic material Enclosure (rear)	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	LN-2520(##)	5VB, 125°C, thickness 2.0mm min	UL 94	UL
	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	MN-3600H(#)	5VB, 95°C min, thickness 2.0mm min	UL 94	UL
	LG CHEMICAL LTD	LUPOY EF- 1006F(m)	5VB, 115°C min, thickness 2.0mm min	UL 94	UL

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
	KINGFA SCI&TECH CO LTD	JH960 HT (M1) (sr)	5VB, 75°C min, thickness 2.0mm min	UL 94	UL
	STYRON (HONG KONG) LTD	Celex 3600 HP(b)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
	STYRON (HONG KONG) LTD	EMERGE PC 8600 HP(h)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
Plastic material Enclosure (left side)(Inlet)	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	LN-2520(##)	5VB, 125°C, thickness 2.0mm min	UL 94	UL
	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	MN-3600H(#)	5VB, 95°C min, thickness 2.0mm min	UL 94	UL
	LG CHEMICAL LTD	LUPOY EF- 1006F(m)	5VB, 115°C min, thickness 2.0mm min	UL 94	UL
	KINGFA SCI&TECH CO LTD	JH960 HT (M1) (sr)	5VB, 75°C min, thickness 2.0mm min	UL 94	UL
	STYRON (HONG KONG) LTD	Celex 3600 HP(b)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
	STYRON (HONG KONG) LTD	EMERGE PC 8600 HP(h)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
Plastic material Enclosure (right side)(outward)	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	LN-2520(##)	5VB, 125°C, thickness 2.0mm min	UL 94	UL
	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	MN-3600H(#)	5VB, 95°C min, thickness 2.0mm min	UL 94	UL

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
	LG CHEMICAL LTD	LUPOY EF-1006F(m)	5VB, 115°C min, thickness 2.0mm min	UL 94	UL
	KINGFA SCI&TECH CO LTD	JH960 HT (M1) (sr)	5VB, 75°C min, thickness 2.0mm min	UL 94	UL
	STYRON (HONG KONG) LTD	Celex 3600 HP(b)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
	STYRON (HONG KONG) LTD	EMERGE PC 8600 HP(h)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
Plastic material Enclosure (Lamp door)	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	LN-2520(##)	5VB, 125°C, thickness 2.0mm min	UL 94	UL
	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	MN-3600H(#)	5VB, 95°C min, thickness 2.0mm min	UL 94	UL
	LG CHEMICAL LTD	LUPOY EF-1006F(m)	5VB, 115°C min, thickness 2.0mm min	UL 94	UL
	KINGFA SCI&TECH CO LTD	JH960 HT (M1) (sr)	5VB, 75°C min, thickness 2.0mm min	UL 94	UL
	STYRON (HONG KONG) LTD	Celex 3600 HP(b)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
	STYRON (HONG KONG) LTD	EMERGE PC 8600 HP(h)	5VA, 125°C min, thickness 2.5mm min	UL 94	UL
Interlock Switch	Elektron Components Ltd, (Former name: ARCOLECTRIC)	8351 series	250Vac, 12A.	IEC/EN 61058-1, Clause 1.7.4.4	UL, CSA, ENEC

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
	Light Country Co. Ltd	LC83 series	250Vac, 10/15A.	IEC/EN 61058-1, Clause 1.7.4.4	UL, CSA, VDE, D.N.S.F
Thermal Protector	KLIXON / SENSATA	YS11 series	250Vac, 7A Operating Temp.:45-150°C Recovery temp.: 35-120 °C	IEC/EN 60730-1	UL, CSA, VDE
The motor of Color Wheel	EIS or Oerlikon or Materion	PVM9A12T1-A1 PVM9A12T1-B1	12 Vdc, 0.5A	--	--
	Nidec	17S URD FFC TYPE	12 Vdc, 0.25A ,	--	--
	Tailien	PT2013 201 PT2013 201A	12 Vdc, 0.15A ,	--	--
	Nidec	17S VA Type.6	12Vdc,0.3A	--	--
	TOKYO PARTS IND.CO.LTD.	PVM9A12T1-B10	12 Vdc,0.5A	--	--
Remote Control (optional)	Acer	E-26*** (* may be alphanumeric or blank)	DC 3V, 60mA max with two AAA battery (carbon-zinc or alkaline type)	--	--
Speaker (one provided) (optional)	--	--	4Ω, 3W (max. 3.5W)	--	--
DC Blower Fan	Adda	AB05012DX200 600	12 Vdc, 0.15A, 3700RPM, 4.634CFM, Outward.	IEC 60950-1, UL 60950	UL, TÜV
DC Fan (Front)	Adda	AD07012DX257 300	12 Vdc, 0.36 A, 4500 RPM, 39.8 CFM, Outward.	IEC 60950-1, UL 60950	UL, TÜV
Power Cord set (Option)	I-Sheng	Plug: SP-023/SP-022 Connector: IS-14 Wire: H05VV-F	10/16 A, 250V 10 A, 250 V 3G 0.75 mm2	DIN VDE 0620 IEC/ DIN EN 60320-1	VDE, D, N, S, FI

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
	HONGLIN	Plug: HL-014/HL-013 Connector: HL-026 Wire: H05VV-F	10/16A 250V 10A 250V 3G 0.75 mm2	DIN VDE 0620 IEC/ DIN EN 60320-1	VDE, D, N, S, FI
	Well Shin	Plug: WS-010A /WS-010 Connector: WS-002 Wire: H05VV-F	10/16 A, 250 V 10 A, 250 V 3G 0.75 mm2	DIN VDE 0620 IEC/ DIN EN 60320-1	VDE, D, N, S, FI
	Linetek	Plug:LP-33/34,LS-14 Connector: LS-15/60/60L/13L Wire:H05VV-F	10A,16A/250V 2.5A,10A/250V 0.75mm2,1.0m m2,1.5mm2/3C	DIN VDE 0620 IEC/ DIN EN 60320-1	VDE, D, N, S, FI
	Hongchang	Plug: DTIII-2P-05 Connector: DTII-3P-04 DTIII-2P-01 DTIII-3P-04 Wire:H05VV-F	10A,16A/250V 2.5A,10A/250V 0.75mm2,1.0m m2,1.5mm2/3C	DIN VDE 0620 IEC/ DIN EN 60320-1	VDE, D, N, S, FI
	Stargazerlink	Plug: STB03/02 Connector: STC13 STC7 STC5 Wire:H05VV-F	10A,16A/250V 2.5A,10A/250V 0.75mm2,1.0m m2,1.5mm2/3C	DIN VDE 0620 IEC/ DIN EN 60320-1	VDE, D, N, S, FI

IEC 60950-1					
Clause	Requirement + Test		Result - Remark		Verdict
	JianRun	Plug: CE-502NJ/501J Connector: CE-601J CE-602J CE-608J Wire: H05VV-F/ H03VVH2	10A, 16A/250V 2.5A, 10A/250V 0.75mm ² , 1.0mm ² , 1.5mm ² /3C	DIN VDE 0620 IEC/ DIN EN 60320-1	VDE, D, N, S, FI
Power Cord (for Japan) (Optional)	I-Sheng	Plug: SP-30 Connector: IS-14 Wire: VCTF	7 A, 125V 7A, 125V 3G, 0.75mm ²	DENAN	PSE
	I-Sheng	Plug: SP-18C Connector: IS-14 Wire: VCTF	7 A, 125V 7A, 125V 3G, 0.75mm ²	DENAN	PSE
	HONGLIN	Plug: HL-020 Connector: HL-026 Wire: VCTF	7A 250V 7A 250V 3G, 0.75 mm ²	DENAN	PSE
	WellShin	Plug: WS-001 Connector: WS-002 Wire: VCTF	7A 125V 7A 125V 3G 0.75mm ²	DENAN	PSE
AC Plug (for Japan) (Optional)	I-Sheng	Plug: IR-01 Wire: VSF	15 A, 125V 1x 1.25mm ²	DENAN	PSE
Power Supply Board " Qisda ", P/N: 4H.1R840.XXX Where X maybe 0-9, A-Z or blank					
-PCB of main power supply	--	--	V-0, 105°C minimum	UL 94	UL
-AC Socket (CN601)	Solteam	ST-01	10/15 A, 250V	IEC 60320-1	VDE, S, UL, CSA
	Rong Feng	SS-120	10/15 A, 250V	IEC 60320-1	VDE, S, UL, CSA
	Zhangjiagang Huajie	SA-4S	10/15 A, 250 V	IEC 60320-1	VDE, S, UL, CSA
-Fuse (F601)	Bel	MRT Series	T6.3A, 250Vac	IEC 60127-2	VDE, S, UL
-Bleeder Resistors	--	--	R601: 590 kΩ, R602: 332 kΩ 1/4W	--	--

IEC 60950-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Varistor (VAR601)	Thinking	TVR10621 Series TVR14621 Series	395Vac, 510Vdc	UL 1449 IEC 61051-2	UL, VDE
	Thinking	TVR14471 Series TVR10471 Series	300Vac, 385Vdc	UL 1449 IEC 61051-2	UL
	JOYIN	JVR14N621 Series	385Vac, 505Vdc	UL 1449 IEC 61051-2	UL
-X Capacitor (CX601)	Iskra	KNB153X (X=0,2,3)	0.68 μ F max, 275V, 85°C min.	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Hua Jung	MKP	0.68 μ F max, 275V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	KEMET(Arcotronics)	R.46	0.68 μ F max, 275V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Vishay	339	0.68 μ F max, 275V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Europtronic	MPX,MPX2	0.68 μ F max, 275V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
-Y Capacitor (CY601, CY602,CY603 (Y1 or Y2 type) (Optional)	TDK	CD	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Murata	KX	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Walsin (Former Pan Overseas)	AH	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Success	SE	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Vishay	VY1	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Wansheng	CT7	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
-Bridging Capacitor (CY610, CY611 (Y1 type) (Optional)	TDK	CD	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Murata	KX	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Walsin (Former Pan Overseas)	AH	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Success	SE	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Vishay	VY1	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
	Wansheng	CT7	4700pF max, 250V, 85°C min	IEC 60384-14/1993 +A1:1995	VDE, SEV, UL, FI, S
-Line Choke (L601)	Li Tai	1J.42045.051	105°C	--	--
	TAICHANG	1J.42045.051	105°C	--	--
-Line Choke (L603)	Li Tai	1J.20325.011	105°C	--	--
	TAICHANG	1J.20325.011	105°C	--	--
-Bridge Diode (BD601)	--	--	600V minimum, 4A minimum	--	--
-PFC Choke (T601)	Li Tai	1J.40266.011	105°C	--	--
	TAICHANG	1J.40266.011	105°C	--	--
-NTC (TR601)	--	--	2.5-12Ω at 25°C	--	--
-Storage Capacitor (C619)	--	Electrolytic can type	150 μF, 450V minimum, 105°C minimum	--	--
-Transistor (Q621)	--	--	600V, 17A minimum	--	--
-Power Transformer (T651)	Li Tai	1J.20288.091	Class 105 material (A)	--	--
	TAICHANG	1J.20288.091	Class 105 material (A)	--	--

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
- Triple insulation wire used in T651	Great Leoflon	TRW(B)	130°C	IEC 60950-1	VDE, UL
	Furukawa	TEX-E	130°C	IEC 60950-1	VDE, UL
	Totoku	TIW-2X, TIW-E	130°C	IEC 60950-1	TÜV, UL
	Daikyo	DTM-B	130°C	IEC 60950-1	TÜV, UL
	Cosmolink	TIW-M	130°C	IEC 60950-1	TÜV, UL
-Photo Coupler (IC652, IC653)	Sharp	PC123	Dti= 0.7mm, distance between input/output: 6.4mm, Transient overvoltage: 9000V, 110°C	IEC 60950-1 EN 60747-5-2	VDE, S, UL, CSA
	Lite-On	LTV-817 series	Dti= 0.4mm, distance between input/output: 7.0mm, Transient overvoltage: 6000V, 110°C	IEC 60950-1 EN 60747-5-2	VDE, S, UL, CSA
	Everlight	EL817	Dti= 0.5mm, distance between input/output: 7.6mm, Transient overvoltage: 6000V, 110°C	IEC 60950-1 EN 60747-5-2	VDE, S, UL, CSA
-Connector (CN602)	CHYAO SHIUNN ELECTRONIC INDUSTRIAL LTD	JS-1120 series JS-1121 series	250V, 7A	IEC/EN 61984: 2001	TÜV, UL
	JOWLE TECHNOLOGY CO LTD	A3963 series	250V, 7A	IEC/EN 61984: 2001	TÜV, UL
	JAPAN SOLDERLESS TERMINAL MFG CO LTD	VH series	250V, 7A	IEC/EN 61984: 2001	TÜV, UL

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
	SIN SHENG TERMINAL & MACHINE INC	P24183 series	250V, 7A	IEC/EN 61984: 2001	TÜV, UL
	WELI SHENG TERMINAL INDUSTRIAL CO LTD	PX-I39606 series (X=2~5)	250V, 7A	IEC/EN 61984: 2001	TÜV, UL
Connector (CN611)	WCON ELECTRONIC CO., LTD	PH2.54	500V AC/DC, 3A	--	--
	ARC ELECTRO INDUSTRY CORP	PH series (P2.54)	250V AC/DC,3A	--	--
Ballast					
Ballast	OSRAM AG	PT VIP O5 COMPACT	Input: 380 Vdc, 0.8 A, max. 275W Output: 80 V, 3 A	IEC 60950- 1(ed.2), IEC 60950- 1(ed.2);am1	CB (by UL Demko)
Lamp module					
Lamp	OSRAM	P-VIP 180/0.8 E20.8	180W	--	--
-Lamp Connector	AMP or TYCO	172166-1 172158-1 (Mini- Universal Mate- N-Lok Series)	300V, 7A	--	UL
-Lamp plate	--	--	metal	--	--
Supplementary information:					
1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

1.5.1	TABLE: Opto Electronic Devices	P
Manufacturer : See supplementary information		
Type..... : See supplementary information		
Separately tested..... : See supplementary information		
Bridging insulation : RI		
External creepage distance : See supplementary information		
Internal creepage distance : See supplementary information		
Distance through insulation : See supplementary information		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Tested under the following conditions : See supplementary information

Input..... : See supplementary information

Output..... : See supplementary information

supplementary information

1. See table 1.5.1 shown for source details.
2. All sources of photo coupler were certified according to DIN EN 60747-5-2 which in compliance with the requirements and provisions of IEC 60747-5-5.
3. All sources of photo coupler were in compliance with CTL DSH 759 decision.

1.6.2	TABLE: Electrical data (in normal conditions)						P
U (V/Hz)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	
Signal input by D-sub connector							
90/50	2.86	--	252	F601	2.86	Maximum normal load.	
90/60	2.90	--	252	F601	2.90	Maximum normal load.	
100/50	2.48	2.8	247	F601	2.48	Maximum normal load.	
100/60	2.47	2.8	246	F601	2.47	Maximum normal load.	
240/50	1.02	2.8	234	F601	1.02	Maximum normal load.	
240/60	1.00	2.8	233	F601	1.00	Maximum normal load.	
264/50	0.92	--	233	F601	0.92	Maximum normal load.	
264/60	0.92	--	233	F601	0.92	Maximum normal load.	
Signal input by Video connector							
90/50	2.83	--	248	F601	2.83	Maximum normal load.	
90/60	2.82	--	248	F601	2.82	Maximum normal load.	
100/50	2.46	2.8	243	F601	2.46	Maximum normal load.	
100/60	2.45	2.8	244	F601	2.45	Maximum normal load.	
240/50	1.01	2.8	230	F601	1.01	Maximum normal load.	
240/60	1.00	2.8	231	F601	1.00	Maximum normal load.	
264/50	0.95	--	230	F601	0.95	Maximum normal load.	
264/60	0.96	--	231	F601	0.96	Maximum normal load.	
Signal input by S-Video connector							
90/50	2.82	--	248	F601	2.82	Maximum normal load.	
90/60	2.80	--	248	F601	2.80	Maximum normal load.	
100/50	2.45	2.8	243	F601	2.45	Maximum normal load.	
100/60	2.43	2.8	243	F601	2.43	Maximum normal load.	

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
240/50	0.99	2.8	229	F601	0.99	Maximum normal load.
240/60	0.98	2.8	230	F601	0.98	Maximum normal load.
264/50	0.92	--	229	F601	0.92	Maximum normal load.
264/60	0.93	--	230	F601	0.93	Maximum normal load.
Signal input by HDMI connector						
90/50	2.81	--	247	F601	2.81	Maximum normal load.
90/60	2.77	--	247	F601	2.77	Maximum normal load.
100/50	2.43	2.8	242	F601	2.43	Maximum normal load.
100/60	2.44	2.8	243	F601	2.44	Maximum normal load.
240/50	0.98	2.8	229	F601	0.98	Maximum normal load.
240/60	0.98	2.8	229	F601	0.98	Maximum normal load.
264/50	0.90	--	228	F601	0.90	Maximum normal load.
264/60	0.90	--	228	F601	0.90	Maximum normal load.
Supplementary information:						

2.1.1.5 c) 1)	TABLE: max. V, A, VA test				P
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
+12V (after D701)	--	12.65	2.2	24.8	
+3.3V (after D702)	--	3.4	3.6	11.03	
supplementary information:					
Input voltage 240V/60Hz					

2.1.1.5 c) 2)	TABLE: stored energy		N/A
Capacitance C (μF)	Voltage U (V)	Energy E (J)	
supplementary information:			

2.2	TABLE: evaluation of voltage limiting components in SELV circuits				P
Component (measured between)		max. voltage (V) (normal operation)		Voltage Limiting Components	
		V peak	V d.c.		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
T651, pin 1 to pin 6 (earth)	94	--	--
T651, pin 1 to pin 6 (after D701)	--	12.65	D701
T651, pin 1 to pin 6 (after C701)	51.2	--	C701
T651, pin 1 to pin 6 (after C702)	36.0	--	C702
T651, pin 2 to pin 6 (earth)	30.0	--	--
T651, pin 2 to pin 6 (earth) (after D702)	--	3.4	D702
T651, pin 2 to pin 6 (earth) (after C703)	17.6	--	C703
T651, pin 2 to pin 6 (earth) (after C704)	12.0	--	C704
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)		
+12V output (D701 short)	0		
+12V output (C701 short)	12.3Vdc		
+12V output (C702 short)	12.2Vdc		
+3.3V output (D702 short)	0		
+3.3V output (C703 short)	3.3Vdc		
+3.3V output (C704 short)	3.3Vdc		
supplementary information:			
Input voltage 240V/60Hz			

2.5	TABLE: limited power sources					P
Circuit output tested:						
Note: Measured Uoc (V) with all load circuits disconnected: See below						
Components	Sample No.	Uoc (V)	I _{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
For Video connector, pin 1 to earth according to table 2B						
Normal condition	1	0	0	8	0	100
For S-Video connector, pin 1-4 to earth according to table 2B						
Normal condition	1	0	0	8	0	100
For Audio input, pin 1-2 to earth according to table 2B						
Normal condition	1	0	0	8	0	100
For Audio output, pin 1-2 to earth according to table 2B						
Normal condition	1	0	0	8	0	100
For D-sub input connector, pin 1-11 to earth according to table 2B						

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
Normal condition	1	0	0	8	0	100
For D-sub input connector, pin 12,13,14,15 to earth according to table 2B						
Normal condition	1	4.25	1mA	8	0.01	100
For D-sub output connector, pin 1-12,15 to earth according to table 2B						
Normal condition	1	0	0	8	0	100
For D-sub output connector, pin 13,14 to earth according to table 2B						
Normal condition	1	3.9	15mA	8	0.06	100
For HDMI connector, pin 2,5,8,11,13,14,17,18,19 to earth according to table 2B						
Normal condition	1	0	0	8	0	100
For HDMI connector, pin 1,3,4,6,7,9,10,12 to earth according to table 2B						
Normal condition	1	3.3	2.9mA	8	0.1	100
For RS232 connector, pin 1-9 to earth according to table 2B						
Normal condition	1	0	0	8	0	100
For mini USB connector, pin 1,2,4,5 to earth according to table 2B						
Normal condition	1	0	0	8	0	100
For mini USB connector, pin 3 to earth according to table 2B						
Normal condition	1	3.2	1.2mA	8	0.01	100
supplementary information:						
Supplementary information: Input voltage 264V/60Hz						
Above connector were delivered signals only, no output power supplied.						

2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Input voltage = 100V, 60Hz				
T651 pin 14 to pin 1	346	476		
T651 pin 14 to pin 2	345	424		
T651 pin 14 to pin 6 (earth)	345	412		
T651 pin 12 to pin 1	360	560		
T651 pin 12 to pin 2	365	572		
T651 pin 12 to pin 6 (earth)	368	572		
T651 pin 9 to pin 1	74	168		
T651 pin 9 to pin 2	70	160		
T651 pin 9 to pin 6 (earth)	70.2	160		
T651 pin 7 to pin 1	70	180		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
T651 pin 7 to pin 2	74	236	
T651 pin 7 to pin 6 (earth)	75	260	
IC652 pin 1 to pin 4	76	164	
IC653 pin 1 to pin 4	74	161	
CY610	75	159	
CY611	73	160	
IC006 pin 1 to pin 4	72	160	
Ballast connector CJ4 pin 1 to earth	63	1380	
Ballast connector CJ4 pin 4 to earth	62.9	1420	
Input voltage = 240V, 60Hz			
T651 pin 14 to pin 1	293	472	
T651 pin 14 to pin 2	292	420	
T651 pin 14 to pin 6 (earth)	292	404	
T651 pin 12 to pin 1	307	540	
T651 pin 12 to pin 2	313	552	
T651 pin 12 to pin 6 (earth)	316	556	
T651 pin 9 to pin 1	174	368	
T651 pin 9 to pin 2	173	360	
T651 pin 9 to pin 6 (earth)	173	362	
T651 pin 7 to pin 1	173	380	
T651 pin 7 to pin 2	175	424	
T651 pin 7 to pin 6 (earth)	175	460	
IC652 pin 1 to pin 4	177	368	
IC653 pin 1 to pin 4	172	362	
CY610	173	361	
CY611	171	363	
IC006 pin 1 to pin 4	171	362	
Ballast connector CJ4 pin 1 to earth	158	1440	
Ballast connector CJ4 pin 4 to earth	156	1500	

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

supplementary information:

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
Functional:							
Under fuse F601 (fuse terminal)	420	250	1.8 (1.5 * 1.14)	2.2	2.5	-- ²	
L to N before fuse	420	250	1.8 (1.5 * 1.14)	9.1	2.5	9.1	
Basic/supplementary:							
F601 to metal enclosure	420	250	2.3 (2.0 * 1.14)	3.9	2.5	3.9	
C619 to metal enclosure	420	250	2.3 (2.0 * 1.14)	5.4	2.5	5.4	
Trace under CY601	420	250	2.3 (2.0 * 1.14)	4.2	2.5	4.2	
Trace under CY602	420	250	2.3 (2.0 * 1.14)	4.0	2.5	4.0	
Trace under CY603	420	250	2.3 (2.0 * 1.14)	3.2	2.5	3.2	
Trace L/N to Earth ³	420	250	2.3 (2.0 * 1.14)	2.5	2.5	3.0	
Reinforced:							
T651 core to C711 (with 10N)	420	250	4.6 (4.0 * 1.14)	5.8	5.0	5.8	
Trace under CY610	420	250	4.6 (4.0 * 1.14)	6.7	5.0	6.7	
Trace under CY611	420	250	4.6 (4.0 * 1.14)	6.7	5.0	6.7	
Trace under IC652	420	250	4.6 (4.0 * 1.14)	7.0	5.0	7.0	
Trace under IC653	420	250	4.6 (4.0 * 1.14)	7.0	5.0	7.0	
Trace under T651	572	368	5.3 (4.6 * 1.14)	7.8	7.4	7.8	
Trace under IC06, IC07, IC10 (in Ballast board)	420	250	4.6 (4.0 * 1.14)	7.3	5.0	7.3	

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Ballast HV connector to user accessible area ^{4.}	1500	250	6.5 ^{4.} (5.7 * 1.14)	11.7	6.5	11.7
--	------	-----	-----------------------------------	------	-----	------

Supplementary information:

1. Functional insulation shorted, see 5.3.4.
2. Electric strength test for functional insulation, see table 5.2.
3. There are two slot provided under L/N and Earth trace, each size: length 8.3mm, width 1.0 mm.
4. The Ballast high voltage having starting pulses, the peak voltage measured when ignite and rms voltage measured after ignite and the clearance determined as clause 2.10.3.5.
5. For clearance and creepage did not describe above are far larger than limit above.

2.10.5	TABLE: Distance through insulation measurements					P
Distance through insulation (DTI) at/of:		U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Photocoupler (reinforced insulation)		420	250	3000	0.4	1.
Plastic enclosure		420	250	3000	0.4	1.
Supplementary information:						
1. See table 1.5.1.						

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.3.8	TABLE: Batteries								N/A
The tests of 4.3.8 are applicable only when appropriate battery data is not available									
Is it possible to install the battery in a reverse polarity position?									
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition									
Max. current during fault condition									
Test results:								Verdict	
- Chemical leaks									
- Explosion of the battery									
- Emission of flame or expulsion of molten metal									
- Electric strength tests of equipment after completion of tests									
Supplementary information:									

4.3.8	TABLE: Batteries	N/A
Battery category..... : (Lithium, NiMh, NiCad, Lithium Ion ...)		
Manufacturer :		
Type / model..... :		
Voltage :		
Capacity..... : mAh		
Tested and Certified by (incl. Ref. No.) :		
Circuit protection diagram:		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

MARKINGS AND INSTRUCTIONS (1.7.13)	
Location of replaceable battery	
Language(s)	
Close to the battery	
In the servicing instructions	
In the operating instructions	

4.5	TABLE: Thermal requirements					P
	Supply voltage (V)	90 ⁴ .	90 ⁵ .	264 ⁴ .	264 ⁵ .	—
	Ambient T _{min} (°C)	--	--		--	—
	Ambient T _{max} (°C)	See below	See below	See below	See below	—
Maximum measured temperature T of part/at::		T (°C)				Allowed T _{max} (°C)
AC inlet near Line		43.0	42.9	40.6	42.3	70
CX601 body		48.4	49.7	43.3	44.0	85
L601 coil		75.6	79.0	45.5	44.9	105
VAR601 body		48.7	48.1	42.2	44.0	--
CN602 body		64.2	65.8	45.8	45.0	70
L603 coil		72.3	73.2	44.6	45.1	105
CY603 body		44.7	44.9	41.1	43.7	85
T601 coil		84.2	85.4	49.2	48.0	105
C619 body		55.8	55.4	45.9	47.3	105
IC652 body		75.4	83.2	57.3	56.8	100
PCB near TR601		72.3	75.7	50.8	50.8	105
T651 Coil		63.7	66.3	56.6	55.4	90
T651 Core		63.0	65.3	56.1	55.0	90
CN611 body		46.5	46.6	45.3	43.8	70
L3 coil of ballast BD		85.8	86.3	83.9	83.4	105
L2 coil of Ballast BD		90.4	90.2	88.6	86.7	105
Photocoupler IC10 of Ballast BD		53.2	53.0	51.7	50.3	100
Lamp plate		126.1	122.4	121.8	118.2	-- ⁶ .
Ballast PCB		63.8	61.8	57.1	57.2	105
Plastic enclosure near Inlet		43.3	41.3	40.6	40.9	95

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict

Lamp housing (inside)	65.0	67.9	57.9	63.4	--
Front enclosure (outside)	80.3	83.7	77.2	77.1	95
Right enclosure (outside)	73.7	78.7	76.4	74.1	95
Bottom enclosure (outside)	50.2	51.5	43.0	42.5	95
Max. ambient temperature T _{ma} (°C): Note: ambient air during test were T _{amb} = 24.0°C, 24.9°C, 24.1°C and 24.7°C respectively	40.0	40.0	40.0	40.0	--

Supplementary information:

- The temperatures were measured under worst case normal mode defined in 1.2.2.1 and as described in 1.6.2 at voltages as described in above.
- Unit specified with maximum of 40°C ambient temperature and above test data was calculated by original test result of ambient temperature above.
Winding components (providing safety isolation):
- Class 120 material (E) $T_{max} = 115^{\circ}\text{C} - 10^{\circ}\text{C} = 105^{\circ}\text{C}$
- Thermocouple method used for measuring the temperatures.
- Test for normal position.
- Test for wall mount position.
- Additional marking of 60417-1-IEC-5041 provided outside the lamp compartment for indicating inner part with temperature exceeded.

Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class

Supplementary information:

4.5.5	TABLE: Ball pressure test of thermoplastic parts			P
	Allowed impression diameter (mm)	≤ 2 mm		—
Part		Test temperature (°C)	Impression diameter (mm)	
Connector CN611, type PH2.54 by WCON		125	1.2	
Connector CN611, type SSW series by SAMTEC		125	1.0	
Connector CN611, type 2214R series and 2214S series by NELTRON		125	1.3	

4.7	TABLE: Resistance to fire					P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence	
Enclosure	Plastic	1.	1.	1.	1.	

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
PCB	--	--	--	V-1 min.	1.
Supplementary information: 1. See table 1.5.1.					

5.1	TABLE: touch current measurement			P
Measured between:	Measured (mA)	Limit (mA)	Comments/conditions	
Line to metal part (earth)	0.72	3.5	switch “e” open	
Neutral to metal part (earth)	0.72	3.5	switch “e” open	
Line to output connector	0.01	0.25	switch “e” close	
Neutral to output connector	0.01	0.25	switch “e” close	
Line to plastic enclosure with metal foil	0.01	0.25	switch “e” close	
Neutral to plastic enclosure with metal foil	0.01	0.25	switch “e” close	
supplementary information:				
Supplementary information: Test voltage: 264V, 60Hz. Overall capacity: see table 1.5.1.				
Line to metal part (earth)	0.28	3.5	switch “e” open	
Neutral to metal part (earth)	0.28	3.5	switch “e” open	
Line to output connector	0.01	0.25	switch “e” close	
Neutral to output connector	0.01	0.25	switch “e” close	
Line to plastic enclosure with metal foil	0.01	0.25	switch “e” close	
Neutral to plastic enclosure with metal foil	0.01	0.25	switch “e” close	
supplementary information:				
Supplementary information: Test voltage: 127V, 60Hz. Overall capacity: see table 1.5.1.				

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Basic/supplementary:				
Unit: primary to earth		DC	2611	No

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Reinforced:			
Unit: primary to secondary	DC	4242	No
Transformer T651: primary winding to secondary winding	AC	3000	No
Transformer T651: secondary winding to core	AC	3000	No
Two layers of insulation tape	AC	3000	No
One layer of insulation tape	AC	3000	No
Supplementary information:			

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				25°C, if no else specified	—
	Power source for EUT: Manufacturer, model/type, output rating				See table 1.5.1.	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
T1 pin 2-3 (in Ballast board)	short	240	1 sec	F601	--	Fuse (F601) opened, inoperable after fault removed, repeat three times and same result, no hazards.
L1 (in Ballast board)	short	240	30 min	F601	0.96	Unit operated normally, no hazardous.
C6 (in Ballast board)	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
C12 (in Ballast board)	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
R4 (in Ballast board)	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
D3 (in Ballast board)	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
R9 (in Ballast board)	short	240	30 min	F601	0.96	Unit operated normally, no hazardous.
T2 D-S (in Ballast board)	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
D701	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
D702	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
T651 pin 1-2	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
T651 pin 2-6	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
T651 pin 12-14	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
T651 pin 7-9	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
T651 Pin14-9	short	240	1 sec	F601	--	Fuse (F601) opened, inoperable after fault removed, repeat three times and same result, no hazards.
D661	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
IC652 pin 1-2	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
IC652 pin 3-4	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
IC652 pin 1	open	240	10 min.	F601	0.01	Unit shutdown, no hazards.
IC750 Pin1	open	240	10 min.	F601	0.01	Unit shutdown, no hazards.
IC607 Pin1-Pin3	short	240	1 sec	F601	--	Fuse (F601) opened, IC607 damaged, no hazards.
IC607 Pin6-Pin7	short	240	30 min	F601	0.96	Unit operated normally, no hazardous.
BD601 pin 1-3	short	240	1 sec	F601	--	Fuse (F601) opened, inoperable after fault removed, repeat three times and same result, no hazards.
C619	short	240	1 sec	F601	--	Fuse (F601) opened, inoperable after fault removed, repeat three times and same result, no hazards.
Q621 D-G	short	240	1sec	F601	--	Fuse (F601) opened, IC601, Q621 damaged, no hazards.
Q621 G-S	short	240	30 min	F601	0.96	Unit operated normally, no hazardous.
Q621 D-S	short	240	1 sec	F601	--	Fuse (F601) opened, IC601 damaged, no hazards.
IC06 pin 1-2	short	240	10 min.	F601	0.01	Unit shutdown, no hazards.
IC06 pin 3-4	short	240	30 min	F601	0.96	Unit operated normally, no hazardous.
IC06 pin 1	open	240	10 min.	F601	0.01	Unit shutdown, no hazards.
IC06 pin 4	open	240	10 min.	F601	0.01	Unit shutdown, no hazards.
Lamp	Forced explosion	240	5 sec	F601	0.01	Unit shut down, only fine dust emitted. No hazard.

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
Opening	Blocked normal position	240V	1hr	F601	0.01	Unit shut down after 8 mins, max.temp. T651 coil/core=46.1/47.1°C, ambient = 24.7°C.
Opening	Blocked ceiling position	240V	2hrs	F601	0.01	Unit shut down after 8 mins, max.temp. T651 coil/core=56.8/57.7°C, ambient = 25.3°C.
Internal blower	Disconnected	240V	2hrs	F601	0.01	Unit shut down after 15 seconds, max.temp. T651coil/core=41.4/41.5°C, ambient = 24.5°C.
Front fan	Stalled	240V	4hrs	F601	0.01	Unit shut down after 15 seconds, max.temp. T651 coil/core=44.8/46.5°C, ambient = 24.4°C.
12Vdc output (T651 pin 1 after D701)	Overload	240V	8Hrs	F601	-	Max loaded current:2.2A T651 Coil: Temp:54.7°C T651 Core: Temp: 57.4°C Ambient: 24.1°C no hazards.
3.3Vdc output (T651 pin 2 after D702)	Overload	240V	8Hrs	F601	-	Max current: 3.6A T651 Coil: Temp:65.3°C T651 Core: Temp: 55.4°C Ambient: 22.8°C no hazards
Color wheel motor "EIS", type PVM9A12T 1-A1	locked rotor	12Vdc	7 hrs	--	--	No damaged, no hazards. Max. temp. of motor body is 99.7°C, ambient= 21.5°C.
Color wheel motor "EIS", type PVM9A12T 1-B1	locked rotor	12Vdc	7 hrs	--	--	No damaged, no hazards. Max. temp. of motor body is 115.4°C, ambient= 22.8°C.

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
Color wheel motor "Nidec", type 17S URD FFC TYPE	locked rotor	12Vdc	7 hrs	--	--	No damaged, no hazards. Max. temp. of motor body is 98.4°C, ambient= 24.9°C.
Color wheel motor "Tailien", type PT2013 201/A	locked rotor	12Vdc	7 hrs	--	--	No damaged, no hazards. Max. temp. of motor body is 120.1°C, ambient= 23.2°C.
Color wheel motor "Tokyo", type PVM9A12T 1-B10	locked rotor	12Vdc	7 hrs	--	--	No damaged, no hazards. Max. temp. of motor body is 129.9°C, ambient= 21.5°C.
Color wheel motor "Nidec", type 17S VA Type.6	locked rotor	12Vdc	7 hrs	--	--	No damaged, no hazards. Max. temp. of motor body is 44.3°C, ambient= 23.7°C.
For Interface board						
Video connector pin 1	over-load	240	10 min	F601	0.96	Open circuit voltage: 0V. Unit operated normally, no damage, no hazards.
S-Video connector pin 1,2,3,4	over-load	240	10 min	F601	0.96	Open circuit voltage: 0V. Unit operated normally, no damage, no hazards.
Audio input connector pin 1,2	over-load	240	10 min	F601	0.96	Open circuit voltage: 0V. Unit operated normally, no damage, no hazards.
Audio output connector pin 1,2	over-load	240	10 min	F601	0.96	Open circuit voltage: 0V. Unit operated normally, no damage, no hazards.
D-sub input connector pin 1,2,3,4,5,6,7 ,8,9,10,11	over-load	240	10 min	F601	0.96	Open circuit voltage: 0V. Unit operated normally, no damage, no hazards.
D-sub input connector pin 12,13,14,15	over-load	240	10 min	F601	0.96	Open circuit voltage: 4.25V, load to 1mA maximum. Unit operated normally, no damage, no hazards.

IEC 60950-1							
Clause	Requirement + Test					Result - Remark	Verdict
D-sub output connector pin 1-12, 15	over-load	240	10 min	F601	0.96	Open circuit voltage: 0V. Unit operated normally, no damage, no hazards.	
D-sub output connector pin 13,14	over-load	240	10 min	F601	0.96	Open circuit voltage: 3.9V, load to 15mA maximum. Unit operated normally, no damage, no hazards.	
HDMI connector pin 2,5,8,11,13, 14,17,18,19	over-load	240	10 min	F601	0.96	Open circuit voltage: 0V. Unit operated normally, no damage, no hazards.	
HDMI connector pin 1,3,4,6,7,9, 10,12	over-load	240	8 hrs	F601	0.96	Open circuit voltage: 3.3V, load to 29mA maximum. Unit operated normally, no damage, no hazards.	
Mini USB connector pin 1,2,4,5	over-load	240	10 min	F601	1.0	Open circuit voltage: 0V. Unit operated normally, no damage, no hazards.	
Mini USB connector pin 3	over-load	240	10 min	F601	1.0	Open circuit voltage: 3.2V, load to 1.2mA maximum. Unit operated normally, no damage, no hazards.	
RS232 connector pin 1-9	over-load	240	10 min	F601	1.0	Open circuit voltage: 0V. Unit operated normally, no damage, no hazards.	
Supplementary information:							

C.2	TABLE: transformers T601						P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
Primary /input winding and secondary/output winding (internal)	DI	572	368	AC 3000	5.3 (4.6 * 1.14)	7.4	Three layers of insulation tape.
Primary/input winding and core (internal)	--	572	368	--	--	--	--
Secondary/output winding and core (internal)	DI	572	368	AC 3000	5.3 (4.6 * 1.14)	7.4	--

IEC 60950-1							
Clause	Requirement + Test				Result - Remark		Verdict
Primary/input part and secondary/output part (external)	DI	572	368	AC 3000	5.3 (4.6 * 1.14)	7.4	--
Primary/input part and core (external)	--	572	368	--	--	--	--
Primary/input part and secondary/output winding (external)	DI	572	368	AC 3000	5.3 (4.6 * 1.14)	7.4	--
Secondary/output part and core (external)	DI	572	368	AC 3000	5.3 (4.6 * 1.14)	7.4	--
Secondary/output part and primary/input winding (external)	DI	572	368	AC 3000	5.3 (4.6 * 1.14)	7.4	--
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
Primary /input winding and secondary/output winding (internal)	DI			AC 3000	Triple insulation wire used	Triple insulation wire used	Three layers of insulation tape.
Primary/input winding and core (internal)	--			--	--	--	--
Secondary/output winding and core (internal)	DI			AC 3000	Triple insulation wire used	Triple insulation wire used	--
Primary/input part and secondary/output part (external)	DI			AC 3000	9.0	9.0	--
Primary/input part and core (external)	--			--	--	--	--
Primary/input part and secondary/output winding (external)	DI			AC 3000	Triple insulation wire used	Triple insulation wire used	--
Secondary/output part and core (external)	DI			AC 3000	9.0	9.0	--
Secondary/output part and primary/input winding (external)	DI			AC 3000	7.6	7.6	--
supplementary information:							

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
C.2	TABLE: transformers		P
<div>Transformer</div> <div>Concentric windings on PQ2016 type bobbin/core. Winding ends additionally fixed with tape, outer winding is secondary. Telfon tubes on all winding exits are provided. Triple insulation wire (source details see table 1.5.1) used for secondary winding. Core is considered as primary. The distance insulation tape is 1.5mm min. for primary winding N2, at bottom edge to winding in pin side. Two layers insulation tape provided on core, bottom side (near pin side). Winding ends additionally fixed with tape.</div> <div><p>Technical drawings of the transformer bobbin showing top, front, side, and bottom views with dimensions. Includes a pin pad top view and a winding order diagram. Photos show the physical assembly with labels for 2L tape and 3Ts tape.</p><p>→ Schematic:</p><p>→ Winding Order:</p></div>			
Description of design:			
Primary/input pins.....:		12-14, 7-8-9	
Secondary/output pins		1-2-6	
Bobbin Material (manufacturer, type, ratings)..... :		Chang Chun, T375J, Phenolic, V-0, 150°C	
Thickness (mm)		0.79	

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict

List of test equipment used:

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Calibration date

Information:

No listing of test equipment used necessary for chosen test procedure.

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict

2.1.1.7	TABLE: Discharge test			P
Condition	τ calculated (s)	τ measured (s)	t u→ 0V (s)	Comments
Fuse In (Line – Neutral)	0.63	0.60	--	Vo=342V, 37% of Vo=126.5V, U _{t=1s} =58V
Supplementary information: Test condition: No load and input voltage is 264V/60Hz Overall capacitance: See table 1.5.1. Discharge resistor: See table 1.5.1.				

2.4.2	TABLE: Limited current circuit measurement				P
Location	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments
For bridging capacitor					
CY610	--	0.29	--	0.7	Test by alternative measuring instrument in Annex D.1, CY610=4700pF.
CY611	--	0.27	--	0.7	Test by alternative measuring instrument in Annex D.1, CY611=4700pF.
Supplementary information: 1. Input voltage 264V/60Hz. 2. Capacitance: See table 1.5.1.					

2.6.3.4	TABLE: Resistance of earthing measurement			P
Location		Resistance measured (mΩ)	Comments	
PE pin of AC inlet to metal chassis		17	40A/2mins. (voltage drop=0.71V)	
PE pin of AC inlet to CY601		8.0	40A/2mins. (voltage drop=0.32V)	
Supplementary information:				

4.6.1, 4.6.2	Table: Enclosure opening measurements		P
Location	Size (mm)	Comments	
Front	7.0 X 7.0	Numerous openings provided. There's no any hazardous voltage or energy hazards present within 5° projections.	

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
Side (near Audio connector side)	7.0 X 7.0 maximum	Numerous openings provided. There's no any hazardous voltage or energy hazards present within 5° projections.	
Side (near Inlet side)	7.0 X 7.0 maximum	Numerous openings provided. There's no any hazardous voltage or energy hazards present within 5° projections.	
Rear	2.7 X 2.7 mm	Numerous openings provided. There's no any hazardous voltage or energy hazards present within 5° projections.	
Bottom	2.7 X 2.7 mm	Numerous openings provided. There's only rated 5V material above those openings.	
Top	--	None	
Supplementary information:			

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements	
Differences according to.....:	EN 60950-1:2006/A11:2009/A1:2010/A12:2011
Attachment Form No.....:	EU_GD_IEC60950_1C_II
Attachment Originator	SGS Fimko Ltd
Master Attachment	Date 2011-08
Copyright © 2011 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.	

EN 60950-1:2006/A11:2009/A1:2010/A12:2011 – CENELEC COMMON MODIFICATIONS

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)					
Contents	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions				P
General	Delete all the “country” notes in the reference document (IEC 60950-1:2005) according to the following list: 1.4.8 Note 2 1.5.1 Note 2 & 3 1.5.7.1 Note 1.5.8 Note 2 1.5.9.4 Note 1.7.2.1 Note 4, 5 & 6 2.2.3 Note 2.2.4 Note 2.3.2 Note 2.3.2.1 Note 2 2.3.4 Note 2 2.6.3.3 Note 2 & 3 2.7.1 Note 2.10.3.2 Note 2 2.10.5.13 Note 3 3.2.1.1 Note 3.2.4 Note 3. 2.5.1 Note 2 4.3.6 Note 1 & 2 4.7 Note 4 4.7.2.2 Note 4.7.3.1 Note 2 5.1.7.1 Note 3 & 4 5.3.7 Note 1 6 Note 2 & 5 6.1.2.1 Note 2 6.1.2.2 Note 6.2.2 Note 6.2.2.1 Note 2 6.2.2.2 Note 7.1 Note 3 7.2 Note 7.3 Note 1 & 2 G.2.1 Note 2 Annex H Note 2				P
General (A1:2010)	Delete all the “country” notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note 6.1.2.1 Note 2 6.2.2.1 Note 2 EE.3 Note				P

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.3.Z1	<p>Add the following subclause:</p> <p>1.3.Z1 Exposure to excessive sound pressure</p> <p>The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones.</p> <p>NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.</p>		N/A
(A12:2011)	<p>In EN 60950-1:2006/A12:2011</p> <p>Delete the addition of 1.3.Z1 / EN 60950-1:2006</p> <p>Delete the definition 1.2.3.Z1 / EN 60950-1:2006 /A1:2010</p>		N/A
1.5.1	<p>Add the following NOTE:</p> <p>NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC</p>	Added.	P
1.7.2.1 (A1:2010)	<p>In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.</p>		N/A
1.7.2.1 (A12:2011)	<p>In EN 60950-1:2006/A12:2011</p> <p>Delete NOTE Z1 and the addition for Portable Sound System.</p> <p>Add the following clause and annex to the existing standard and amendments.</p>		N/A
	Zx Protection against excessive sound pressure from personal music players		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.1 General</p> <p>This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players.</p> <p>A personal music player is a portable equipment for personal use, that:</p> <ul style="list-style-type: none"> is designed to allow the user to listen to recorded or broadcast sound or video; and primarily uses headphones or earphones that can be worn in or on or around the ears; and allows the user to walk around while in use. <p>NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment.</p> <p>A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause.</p> <p>The requirements in this sub-clause are valid for music or video mode only.</p> <p>The requirements do not apply:</p> <ul style="list-style-type: none"> while the personal music player is connected to an external amplifier; or while the headphones or earphones are not used. <p>NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player.</p> <p>The requirements do not apply to:</p> <ul style="list-style-type: none"> hearing aid equipment and professional equipment; <p>NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.</p>		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015.</p> <p>NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.</p> <p>For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.</p>		
	<p>Zx.2 Equipment requirements</p> <p>No safety provision is required for equipment that complies with the following:</p> <p>equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dBA measured while playing the fixed "programme simulation noise" as described in EN 50332-1; and</p> <p>a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" as described in EN 50332-1.</p> <p>NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $L_{Aeq,T}$ is meant. See also Zx.5 and Annex Zx.</p> <p>All other equipment shall:</p> <p>a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and</p> <p>b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and</p>		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and</p> <p>NOTE 2 Examples of means include visual or audible signals. Action from the user is always required.</p> <p>NOTE 3 The 20 h listening time is the accumulative listening time, independent how often and how long the personal music player has been switched off.</p> <p>d) have a warning as specified in Zx.3; and</p> <p>e) not exceed the following:</p> <p>1) equipment provided as a package (player with its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed "programme simulation noise" described in EN 50332-1; and</p> <p>2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" described in EN 50332-1.</p> <p>For music where the average sound pressure (long term $L_{Aeq,T}$) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song.</p> <p>NOTE 4 Classical music typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA.</p> <p>For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.</p>		

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.3 Warning</p> <p>The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:</p> <p style="padding-left: 40px;">the symbol of Figure 1 with a minimum height of 5 mm; and</p> <p style="padding-left: 40px;">the following wording, or similar:</p> <p>“To prevent possible hearing damage, do not listen at high volume levels for long periods.”</p> <div data-bbox="576 728 839 987" data-label="Image"> <p>The image shows a warning symbol consisting of an equilateral triangle. Inside the triangle is a stylized human ear with three curved lines (sound waves) emanating from it. The entire symbol is enclosed within a rectangular frame with corner brackets.</p> </div> <p style="text-align: center;">Figure 1 – Warning label (IEC 60417-6044)</p> <p>Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.</p>		N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	<p>Zx.4.1 Wired listening devices with analogue input</p> <p>With 94 dBA sound pressure output $L_{Aeq,T}$, the input voltage of the fixed “programme simulation noise” described in EN 50332-2 shall be ≥ 75 mV.</p> <p>This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control).</p> <p>NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.</p>		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.4.2 Wired listening devices with digital input</p> <p>With any playing device playing the fixed “programme simulation noise” described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA.</p> <p>This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.).</p> <p>NOTE An example of a wired listening device with digital input is a USB headphone.</p>		N/A
	<p>Zx.4.3 Wireless listening devices</p> <p>In wireless mode:</p> <p>with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and</p> <p>respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and</p> <p>with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA.</p> <p>NOTE An example of a wireless listening device is a Bluetooth headphone.</p>		N/A
	<p>Zx.5 Measurement methods</p> <p>Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s.</p> <p>NOTE Test method for wireless equipment provided without listening device should be defined.</p>		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;	Replaced.	P
	c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		P
2.7.2	This subclause has been declared 'void'.		N/A
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.		N/A
3.2.5.1	Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2". In Table 3B, replace the first four lines by the following: Up to and including 6 0,75 ^{a)} Over 6 up to and including 10 (0,75) ^{b)} 1,0 Over 10 up to and including 16 (1,0) ^{c)} 1,5 In the conditions applicable to Table 3B delete the words "in some countries" in condition ^{a)} . In NOTE 1, applicable to Table 3B, delete the second sentence.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.3.4	In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: Over 10 up to and including 16 1,5 to 2,5 1,5 to 4 Delete the fifth line: conductor sizes for 13 to 16 A		N/A
4.3.13.6 (A1:2010)	Replace the existing NOTE by the following: NOTE Z1 Attention is drawn to: 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz, and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation).		N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
Annex H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.		N/A
Bibliography	Additional EN standards.		—

ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS	—
-----------	--	---

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In Denmark , certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.		N/A
1.2.13.14	In Norway and Sweden , for requirements see 1.7.2.1 and 7.3 of this annex.		N/A
1.5.7.1	In Finland , Norway and Sweden , resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.8	In Norway , due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	Complied.	P
1.5.9.4	In Finland, Norway and Sweden , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	<p>In Finland, Norway and Sweden, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows:</p> <p>In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p> <p>In Norway and Sweden, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system.</p> <p>It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer.</p> <p>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:</p> <p>"Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing – and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)."</p>	"Apparaten skall anslutas till jordat uttag" statement is provided in label.	P

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>NOTE In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Utstyr som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av utstyret til kabel-TV nettet installeres en galvanisk isolator mellom utstyret og kabel- TV nettet.”</p> <p>Translation to Swedish:</p> <p>”Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet.”</p>		N/A
1.7.5	<p>In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.</p> <p>For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.</p>		N/A
2.2.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.3.2	In Finland, Norway and Sweden there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.3.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.6.3.3	In the United Kingdom , the current rating of the circuit shall be taken as 13 A, not 16 A.		P
2.7.1	In the United Kingdom , to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.13	In Finland, Norway and Sweden , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A
3.2.1.1	<p>In Switzerland, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets:</p> <p>SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A</p> <p>SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A</p> <p>SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A</p> <p>In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998:</p> <p>SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A</p> <p>SEV 5933-2.1998: Plug Type 21, L+N, 250 V, 16A</p> <p>SEV 5934-2.1998: Plug Type 23, L+N+PE 250 V,</p>		N/A
3.2.1.1	<p>In Denmark, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.</p>		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	<p>In Spain, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994.</p> <p>Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994.</p> <p>If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.</p>		N/A
3.2.1.1	<p>In the United Kingdom, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations.</p> <p>NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>		N/A
3.2.1.1	<p>In Ireland, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.</p>		N/A
3.2.4	In Switzerland , for requirements see 3.2.1.1 of this annex.		N/A
3.2.5.1	In the United Kingdom , a power supply cord with conductor of 1,25 mm ² is allowed for equipment with a rated current over 10 A and up to and including 13 A.		N/A
3.3.4	<p>In the United Kingdom, the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is:</p> <ul style="list-style-type: none"> • 1,25 mm² to 1,5 mm² nominal cross-sectional area. 		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.6	In the United Kingdom , the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A
4.3.6	In Ireland , DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.		N/A
5.1.7.1	In Finland, Norway and Sweden TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: <ul style="list-style-type: none"> • STATIONARY PLUGGABLE EQUIPMENT TYPE A that <ul style="list-style-type: none"> is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT. 		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.1 (A1:2010)	<p>In Finland, Norway and Sweden, add the following text between the first and second paragraph of the compliance clause:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. <p>Alternatively for components, there is no distance through insulation requirements for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. 		N/A
	<p>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).</p> <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 60384-14; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14. 		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.2	In Finland, Norway and Sweden , the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.		N/A
7.2	In Finland, Norway and Sweden , for requirements see 6.1.2.1 and 6.1.2.2 of this annex. The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
7.3	In Norway and Sweden , for requirements see 1.2.13.14 and 1.7.2.1 of this annex.		N/A
7.3	In Norway , for installation conditions see EN 60728-11:2005.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

<p align="center">ATTACHMENT TO TEST REPORT IEC 60950-1 CANADA NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements</p>			
Differences according to: CAN/CSA-C22.2 NO. 60950-1A-07			
Attachment Form No.: CA_ND_IEC60950_1C			
Attachment Originator: TÜV SÜD Product Service GmbH			
Master Attachment: Date (2012-08)			
Copyright © 2012 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			

	Special national conditions		P
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2.		P
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.		P
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	Considered.	P
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the CEC/NEC.		N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the CEC are required to have special construction features and identification markings.		N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings.	Single-phase equipment.	N/A
	A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and		N/A
	- if it is part of a range that extends into the Table 2 "Normal Operating Conditions."		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	A voltage rating is not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with CEC Part 1 or NEC are marked with the voltage rating and "Class 2" or equivalent.		N/A
	- Marking is located adjacent to the terminals		N/A
	- Marking is visible during wiring		N/A
2.5	Fuse providing Class 2, Limited Power Source, or TNV current limiting is not operator-accessible unless it is not interchangeable.		N/A
2.6.3.3	Modify first column on Table 2D to "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		P
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is provided for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.	No such components provided.	N/A
	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, provided with special transformer overcurrent protection.		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains is in accordance with the NEC/CEC.	No power cord provided.	N/A
3.2.1	Attachment plugs of power supply cords are rated not less than 125 percent of the rated current of the equipment.		N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment comply with special earthing, wiring, marking and installation instruction requirements.		N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
3.2.5	Power supply cords are no longer than 4.5 m in length.		N/A
	Minimum cord length is 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Flexible power supply cords are compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
3.2.9	Permanently connected equipment have a suitable wiring compartment and wire bending space.		N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0.	No wire binding screws.	N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are		N/A
	- rated 125 percent of the equipment rating, and		N/A
	- are specially marked when specified (1.7.7).		N/A
3.3.5	Revise first column of Table 3E to "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		N/A
3.4.2	Motor control devices are provided for cord-connected equipment with a motor if the equipment is rated more than 12 A,		N/A
	- or if the motor has a nominal voltage rating greater than 120 V		N/A
	- or is rated more than 1/3 hp (locked rotor current over 43 A)		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position.		N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the computer room remote power-off circuit.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.		N/A
4.3.13.5	Equipment with lasers meet the Canadian Radiation Emitting Devices Act, REDR C1370 and/or Code of Federal Regulations 21 CFR 1040, as applicable.	No Laser.	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less.		N/A
	For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A
Annex H	Equipment that produces ionizing radiation comply with the Canadian Radiation Emitting Devices Act, REDR C1370 and/or Code of Federal Regulations, 21 CFR 1020, as applicable.	No ionizing radiation.	N/A
	Other National Differences		
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements.	Approved components used, see table 1.5.1 of IEC 60950-1 report.	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as either a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply.		N/A
	This maximum operating voltage includes consideration of the battery charging "float voltage" associated with the intended supply system, regardless of the marked power rating of the equipment.		N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 V _{peak} or 60 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.		N/A
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more reduce the risk of injury due to the implosion of the CRT.		N/A
4.3.2	Equipment with handles complies with special loading tests.		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are overloaded.	See IEC 60950-1 test report.	P
	During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test shall be repeated twice (three tests total) using new components as necessary		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.		N/A
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger.		N/A
M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear comply with special acoustic pressure requirements.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

<p align="center">ATTACHMENT TO TEST REPORT IEC 60950-1 FINLAND NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements</p>			
Differences according to: EN 60950-1:2006/A11:2009/A1:2010			
Attachment Form No.: FI_ND_IEC60950_1C			
Attachment Originator: SGS Fimko Ltd			
Master Attachment: Date (2010-04)			
Copyright © 2010 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			

	National Differences		P
General	See also Group Differences (EN 60950-1:2006/A11/A1)		P
1.5.7.1	In Finland resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.9.4	In Finland , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	In Finland , CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in in Finland shall be as follows: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"		N/A
2.3.2	In Finland , there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.10.5.13	In Finland , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.7.1	<p>In Finland, TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment:</p> <ul style="list-style-type: none"> • STATIONARY PLUGGABLE EQUIPMENT TYPE A that <ul style="list-style-type: none"> - is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and - has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and - is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT. 		N/A
6.1.2.1 (A1:2010)	<p>In Finland, add the following text between the first and second paragraph of the compliance clause:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. <p>Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. 		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).</p> <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14:2005 which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 60384-14:2005; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14:2005, in the sequence of tests as described in EN 60384-14:2005. 		N/A
6.1.2.2	<p>In Finland, the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.</p>		N/A
7.2	<p>In Finland, for requirements see 6.1.2.1 and 6.1.2.2 of this annex.</p> <p>The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.</p>		N/A

National Differences to IEC 60950-1:2005 + A1:2009			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
GERMANY NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to.....: VDE 0805-1:2011-01

Annex ZC, 1.7.2.1	According to GPSG, section 2, clause 4: If certain rules on the use, supplementation or maintenance of an item of technical work equipment or ready-to-use commodity must be observed in order to guarantee safety and health, instructions for use in German must be supplied when it is brought into circulation.		N/A
----------------------	--	--	-----

National Differences to IEC 60950-1:2005 + A1:2009			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
ISRAEL NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to.....: SI 60950 Part 1

1.1.1	Replace the the text of Note 3 as follows: The requirements of Israel Standard SI 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment.		P
1.6	The clause is applicable with the following addition:		P
1.6.1	Add following note: In Israel, this clause is applicable subject to the Electricity Law, 1954, its regulations and revisions.		P
1.7	The clause is applicable with the following additions: Subclause 1.7.201 shall be added at the beginning of the clause as follows:		N/A
1.7.201	Marking in the Hebrew language The marking in the Hebrew language shall be in accordance with the Consumer Protection Order (Marking of goods), 1983. In addition to the marking required by clause 1.7.1, the following details shall be marked in the Hebrew language. The details shall be marked on the apparatus or on its package, or on a label properly attached to the apparatus or on the package, by bonding or sewing, in a manner that the label cannot be easily removed. 1. Name of the apparatus and its commercial designation; 2. Manufacturer's name and address. If the apparatus is imported, the importer's name and address; 3. Manufacturer's registered trademark, if any; 4. Name of the model and serial number, if any; 5. Country of manufacture.		N/A
1.7.2.1	The following shall be added to the clause: All the instructions and warnings related to safety shall also be written in the Hebrew language.		N/A
2	The clause is applicable with the following additions:		P

National Differences to IEC 60950-1:2005 + A1:2009			
Clause	Requirement + Test	Result - Remark	Verdict
2.9.4	<p>The following shall be added at the beginning of the clause:</p> <p>In Israel, according to the Electricity Law, 1954, and the Electricity Regulations (Earthing and means of protection against electricity of voltages up to 1,000V) 1991, seven means of protection against electrocution are permitted, as follows:</p> <ol style="list-style-type: none"> 1) TN-S - Network system earthing; TN-C-S - Network system earthing; 2) TT - Network system earthing; 3) IT - Network Insulation Terre; 4) Isolated transformer; 5) Safety extra low voltage (SELV or ELV); 6) Residual current circuit breaker (30 mA = I_Δ); 7) Reinforced insulation; Double insulation (class II) 		P
2.201	<p>Prevention of electromagnetic interference</p> <p>- Prior to carrying out the tests in accordance with the clauses of this Standard, the compliance of the apparatus with the relevant requirements specified in the appropriate part of the Standard series, SI 961, shall be checked.</p> <p><u>The apparatus shall meet the requirements in the appropriate part of the Standard series, SI 961.</u></p> <p>- If there are components in the apparatus for the prevention of electromagnetic interference, these components shall not reduce the safety level of the apparatus as required by this Standard.</p>		N/A
3	The clause is applicable with the following additions:		N/A
3.2.1.1	<p>Connection to an a.c. mains supply</p> <p>After the note, the following note shall be added:</p> <p>Note:</p> <p>In Israel, the feed plug shall comply with the requirements of Israel Standard SI 32 Part 1.1.</p>		N/A
3.2.1.2	<p>Connection to a d.c. mains supply</p> <p>At the end of the first paragraph, the following note shall be added:</p> <p>Note:</p> <p>At the time of issue of this Standard, there is no Israel Standard for connection accessories to d.c.</p>		N/A
Annex P	<p>Normative references</p> <p>(List of relevant Israel Standards that have been inserted in place of some of the International Standards)</p>		P

National Differences to IEC 60950-1:2005 + A1:2009			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
KOREA NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to.....: K 60950-1

1.5.101	Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305)		N/A
8	EMC The apparatus shall comply with the relevant CISPR standards.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

<p align="center">ATTACHMENT TO TEST REPORT IEC 60950-1 U.S.A. NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements</p>			
Differences according to.....: UL 60950-1-07			
Attachment Form No.: US_ND_IEC60950_1C			
Attachment Originator.....: TÜV SÜD Product Service GmbH			
Master Attachment.....: Date (2012-08)			
Copyright © 2012 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			

	Special national conditions		P
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2.		P
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	Considered.	P
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.		P
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the CEC/NEC.	No power cord provided.	N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the CEC are required to have special construction features and identification markings.		N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings.	Single-phase equipment.	N/A
	A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and		N/A
	- if it is part of a range that extends into the Table 2 "Normal Operating Conditions."		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	A voltage rating is not to be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with CEC Part 1 or NEC are marked with the voltage rating and "Class 2" or equivalent.		N/A
	- Marking is located adjacent to the terminals		N/A
	- Marking is visible during wiring		N/A
2.5	Fuse providing Class 2, Limited Power Source, or TNV current limiting is not operator-accessible unless it is not interchangeable.		N/A
2.6.3.3	Modify first column on Table 2D to "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		P
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is provided for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.	No such components provided.	N/A
	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, provided with special transformer overcurrent protection.		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains is in accordance with the NEC/CEC.	No power cord provided.	N/A
3.2.1	Attachment plugs of power supply cords are rated not less than 125 per cent of the rated current of the equipment.		N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment comply with special earthing, wiring, marking and installation instruction requirements.		N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
3.2.5	Power supply cords are no longer than 4.5 m in length.		N/A
	Minimum cord length is 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Flexible power supply cords are compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
3.2.9	Permanently connected equipment have a suitable wiring compartment and wire bending space.		N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0.	No wire binding screws.	N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are		N/A
	- rated 125 per cent of the equipment rating, and		N/A
	- are specially marked when specified (1.7.7).		N/A
3.3.5	Revise first column of Table 3E to "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		N/A
3.4.2	Motor control devices are provided for cord-connected equipment with a motor if the equipment is rated more than 12 A,		N/A
	- or if the motor has a nominal voltage rating greater than 120 V		N/A
	- or is rated more than 1/3 hp (locked rotor current over 43 A)		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position.		N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the computer room remote power-off circuit.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.		N/A
4.3.13.5	Equipment with lasers meet the Canadian Radiation Emitting Devices Act, REDR C1370 and/or Code of Federal Regulations 21 CFR 1040, as applicable.	No Laser.	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less.		N/A
	For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A
Annex H	Equipment that produces ionizing radiation complies with U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No ionizing radiation.	N/A
	Other National Differences		P
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements.	Approved components used, see table 1.5.1 of IEC 60950-1 report.	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as either a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply.		N/A
	This maximum operating voltage includes consideration of the battery charging "float voltage" associated with the intended supply system, regardless of the marked power rating of the equipment.		N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 V _{peak} or 60 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.		N/A
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more reduce the risk of injury due to the implosion of the CRT.		N/A
4.3.2	Equipment with handles complies with special loading tests.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests.		N/A
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are overloaded.	See IEC 60950-1 test report.	P
	During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test shall be repeated twice (three tests total) using new components as necessary		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.		N/A
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger.		N/A
Annex M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear comply with special acoustic pressure requirements.		N/A

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
AUSTRALIA and NEW ZEALAND NATIONAL DIFFERENCES
Information technology equipment – Safety –
Part 1: General requirements

Differences according to.....: AS/NZS 60950.1:2011

1.2	Insert the following between 'person, service' and 'range, rated frequency': POTENTIAL IGNITION SOURCE 1.2.12		N/A
1.2.12.201	Insert a new Clause 1.2.12.201 after Clause 1.2.12.15 as follows: 1.2.12.201 POTENTIAL IGNITION SOURCE Possible fault which can start a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s. current under normal operating conditions exceeds 15 VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in CONDUCTIVE PATTERNS on PRINTED BOARDS. NOTE 201 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE. NOTE 202 This definition is from AS/NZS 60065:2003.		N/A
1.5.1	1. Add the following to the end of the first paragraph: 'or the relevant Australian/New Zealand Standard.' 2. In NOTE 1, add the following after the word 'standard': 'or an Australian/New Zealand Standard'	Added.	P
1.5.2	Add the following to the end of the first and third dash items: 'or the relevant Australian/New Zealand Standard'	Added.	P

National Differences																				
Clause	Requirement + Test	Result - Remark	Verdict																	
3.2.5.1	<div>Modify Table 3B as follows:</div> <div>1. Delete the first four rows and replace with the following:</div> <table><tr><th rowspan="2">RATED CURRENT of equipment A</th><th colspan="2">Minimum conductor sizes</th></tr><tr><th>Nominal cross-sectional area mm²</th><th>AWG or kcmil [cross-sectional area in mm²] see Note 2</th></tr><tr><td>Over 0.2 up to and including 3</td><td>0,5 ^a</td><td>18 [0,8]</td></tr><tr><td>Over 3 up to and including 7.5</td><td>0,75</td><td>16 [1,3]</td></tr><tr><td>Over 7.5 up to and including 10</td><td>(0,75) ^b 1,00</td><td>16 [1,3]</td></tr><tr><td>Over 10 up to and including 16</td><td>(1,0) ^c 1,5</td><td>14 [2]</td></tr></table> <div>2. Delete NOTE 1.</div> <div>3. Delete Footnote ^a and replace with the following:</div> <div>^a This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0,5 mm² three-core supply flexible cords are not permitted; see AS/NZS 3191).</div>	RATED CURRENT of equipment A	Minimum conductor sizes		Nominal cross-sectional area mm²	AWG or kcmil [cross-sectional area in mm²] see Note 2	Over 0.2 up to and including 3	0,5 ^a	18 [0,8]	Over 3 up to and including 7.5	0,75	16 [1,3]	Over 7.5 up to and including 10	(0,75) ^b 1,00	16 [1,3]	Over 10 up to and including 16	(1,0) ^c 1,5	14 [2]	Modified.	N/A
RATED CURRENT of equipment A	Minimum conductor sizes																			
	Nominal cross-sectional area mm²	AWG or kcmil [cross-sectional area in mm²] see Note 2																		
Over 0.2 up to and including 3	0,5 ^a	18 [0,8]																		
Over 3 up to and including 7.5	0,75	16 [1,3]																		
Over 7.5 up to and including 10	(0,75) ^b 1,00	16 [1,3]																		
Over 10 up to and including 16	(1,0) ^c 1,5	14 [2]																		
4.1.201	<div>Insert a new Clause 4.1.201 after Clause 4.1 as follows:</div> <div>4.1.201 Display devices used for television purposes</div> <div>Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television receivers, specified in AS/NZS 60065.</div>		N/A																	
4.3.6	<div>Delete the third paragraph and replace with the following:</div> <div><i>Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flatpin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.</i></div>	Deleted.	N/A																	
4.3.16.5	<div>Add the following to the end of the first paragraph:</div> <div>'or AS/NZS 2211.1'</div>	Added.	N/A																	

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict
4.7	Add the following new paragraph to the end of the clause: 'For alternate tests refer to Clause 4.7.201.'	Added.	N/A
4.7.201	Insert a new Clause 4.7.201 after Clause 4.7.3.6 as follows: 4.7.201 Resistance to fire – Alternative tests		N/A
4.7.201.1	<p>4.7.201.1 General</p> <p>Parts of non-metallic material shall be resistant to ignition and spread of fire.</p> <p>This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the apparatus, or the following:</p> <p>(a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1mm in width regardless of length.</p> <p>(b) The following parts which would contribute negligible fuel to a fire:</p> <ul style="list-style-type: none"> - small mechanical parts, the mass of which does not exceed 4g, such as mounting parts, gears, cams, belts and bearings; - small electrical components, such as capacitors with a volume not exceeding 1,750 mm³, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10. <p>NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another.</p> <p>Compliance shall be checked by the tests of 4.7.201.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5.</p> <p>For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5.</p> <p>The tests shall be carried out on parts of non-metallic material which have been removed from the apparatus. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use.</p> <p>These tests are not carried out on internal wiring.</p>		N/A

National Differences									
Clause	Requirement + Test	Result - Remark	Verdict						
4.7.201.2	<p>4.7.201.2 Testing of non-metallic materials</p> <p>Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550 °C.</p> <p>Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part.</p>		N/A						
4.7.201.3	<p>4.7.201.3 Testing of insulating materials</p> <p>Parts of insulating material supporting POTENTIAL IGNITION SOURCES shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750 °C.</p> <p>The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection.</p> <p>NOTE Contacts in components such as switch contacts are considered to be connections.</p> <p>For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test shall not be tested.</p> <p>The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:</p> <table><tr><td>Clause of AS/NZS 60695.11.5</td><td>Change</td></tr><tr><td colspan="2">9 Test procedure</td></tr><tr><td>9.2 Application of needleflame</td><td><p>Replace the first paragraph with:</p><p>The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1. If possible the flame shall be applied at least 10 mm from a corner</p><p>Replace the second paragraph with:</p><p>The duration of application of the test</p></td></tr></table>	Clause of AS/NZS 60695.11.5	Change	9 Test procedure		9.2 Application of needleflame	<p>Replace the first paragraph with:</p> <p>The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1. If possible the flame shall be applied at least 10 mm from a corner</p> <p>Replace the second paragraph with:</p> <p>The duration of application of the test</p>		N/A
Clause of AS/NZS 60695.11.5	Change								
9 Test procedure									
9.2 Application of needleflame	<p>Replace the first paragraph with:</p> <p>The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1. If possible the flame shall be applied at least 10 mm from a corner</p> <p>Replace the second paragraph with:</p> <p>The duration of application of the test</p>								

National Differences			
Clause	Requirement + Test		Verdict
		flame shall be 30 s ± 1 s.	
	9.3 Number of test specimens	Replace with: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test.	
	11 Evaluation of test results	Replace with: The duration of burning (t_b) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.	
	The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the sample tested was not thicker than the relevant part.		
4.7.201.4	4.7.201.4 Testing in the event of non-extinguishing material If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3, by failure to extinguish within 30 s after the removal of the glowwire tip, the needle-flame test detailed in 4.7.201.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested. NOTE 1 If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing. NOTE 2 If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing. NOTE 3 Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.		N/A
4.7.201.5	4.7.201.5 Testing of printed boards The base material of printed boards shall be subjected to the needle-flame test of Clause		N/A

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE.</p> <p>The test is not carried out if the —</p> <ul style="list-style-type: none"> - Printed board does not carry any POTENTIAL IGNITION SOURCE; - Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or - Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. <p>Compliance shall be determined using the smallest thickness of the material.</p> <p>NOTE Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 min when the circuit supplied is disconnected.</p>		
6.2.2	<p>For Australia only, delete the first paragraph and Note, and replace with the following:</p> <p>In Australia only, compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2.</p>		N/A

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict
6.2.2.1	<p>For Australia only, delete the first paragraph including the Notes, and replace with the following:</p> <p><i>In Australia only, the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator reference 1 of Table N.1. The interval between successive impulses is 60 s and the initial voltage, U_c, is:</i></p> <p><i>(i) for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and</i></p> <p><i>(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.</i></p> <p>NOTE 201 The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines.</p> <p>NOTE 202 The value of 2.5 kV for 6.2.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.</p>		N/A
6.2.2.2	<p>For Australia only, delete the second paragraph including the Note, and replace with the following:</p> <p><i>In Australia only, the a.c. test voltage is:</i></p> <p><i>(i) for 6.2.1 a): 3 kV; and</i></p> <p><i>(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.</i></p> <p>NOTE 201 Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used.</p> <p>NOTE 202 The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.</p>		N/A
7.3	<p>Add the following before the first paragraph:</p> <p>Equipment providing functions that fall only within the scope of AS/NZS 60065 and that incorporate a PSTN interface, are not required to comply with this Clause where the only ports provided on the equipment, in addition to a coaxial cable connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunications purposes.</p>		N/A
Annex P	<p>Normative references</p> <p>(List of relevant Australia/New Zealand Standards that have been inserted in place of some of the International Standards)</p>		N/A

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict



ATTACHMENT TO TEST REPORT IEC 60950-1
CHINA NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements



Differences according to.....: GB4943.1-2011

1.1.2	GB 4943.1-2011 applies to equipment for use at altitudes not exceeding 5000m above sea level, primarily in regions with moderate or tropical climates. Amend the third dashed paragraph of 1.1.2 as: — — equipment intended to be used in vehicles, on board ships or aircraft, at altitudes greater than 5000m;		N/A
1.4.5	After the third paragraph, add a paragraph: If the equipment is intended for direct connection to an AC mains supply, the tolerances on RATED VOLTAGE shall be taken as +10%,-10% unless a wider tolerance is declared by the manufacturer. The first dash paragraph "-the RATED VOLTAGE is 230V single -phase or 400V three-phase, in which case the tolerance shall be taken as +10% and -10%" of IEC 60950-1:2005 is deleted in GB 4943.1-2011		N/A
1.4.12.1	Tma in clause 1.4.12.1 amended as: Tma: is the maximum ambient temperature permitted by the manufacturer's specification, or 35 °C, whichever is greater. Add note 1: For equipment not to be operated at tropical climatic conditions, Tma: is the maximum ambient temperature permitted by the manufacturer's specification, or 25 °C, whichever is greater. Add note 2: For equipment is to be operated at 2000m-5000m above sea leave, its temperature test conditions and temperature limits are under consideration.		P
1.5. 2	Add a note behind the first break off section in Clause 1.5.2: A component used shall comply with related requirements corresponding altitude of 5000m.		P
1.7	Add one paragraph before the last paragraph: The required marking and instruction should be given in normative Chinese unless otherwise specified.		N/A

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	<p>Based on the AC mains supply of China, the RATED VOLTAGE should be 220V (single phase) or 380V (three-phases) for single rated voltage, for RATED VOLTAGE RANGE, it should cover 220V or 380V (three-phases), for multiple RATED VOLTAGES, one of them should be 220V or 380V (three-phases) and set on 220V or 380V (three-phases) when manufactured.</p> <p>And the RATED FREQUENCY or RATED FREQUENCY RANGE should be 50Hz or include 50Hz.</p>		N/A
1.7.2.1	<p>Add requirements of warning for equipment intended to be used at altitudes not exceeding 2000m or at non-tropical climate regions:</p> <p>For equipment intended to be used at altitude not exceeding 2000m, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place.</p> <p>"Only used at altitude not exceeding 2000m."</p>  <p>For equipment intended to be used in not-tropical climate regions, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place.</p> <p>"Only used in not-tropical climate regions."</p>  <p>If only the symbol used, the explanation of the symbol shall be contained in the instruction manual.</p> <p>The above statements shall be given in a language acceptable to the regions where the apparatus is intended to be used.</p>		N/A
2.7.1	<p>Amended the first paragraph as:</p> <p>Protection in PRIMARY CIRCUITS against overcurrent short-circuits and earth faults shall be provided as an integral part of the equipment except special provisions. And the protective device shall meet the requirement of Clause 5.3.</p> <p>Delete note of Clause 2.7.1.</p>		N/A

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict
2.9.2	<p>First section of Clause 2.9.2 amended as two sections:</p> <p>Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 120 h in a cabinet or room containing air with ambient temperature $40\pm 2^{\circ}\text{C}$ and a relative humidity of $(93\pm 3)\%$. During this conditioning the component or subassembly is not energized.</p> <p>For equipment not to be operated at tropical climatic conditions, Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 48 h in a cabinet or room containing air with a relative humidity of $(93\pm 3)\%$. The temperature of the air, at all places where samples can be located, is maintained within 2°C of any convenient value between 20°C and 30°C such that condensation does not occur.</p> <p>Due to pretreatment of equipment operated at high altitude area is humidity conditioning withstand hot shock, specific requirements are to be considered.</p> <p>Add note: For equipment to be operated at 2000 m - 5000m above sea level, assessment and requirement of humidity conditioning for Insulation material properties are considered.</p>		N/A
2.10.3.1	<p>Amend the third paragraph of Clause 2.10.3.1 to be:</p> <p>These requirements apply for equipment to be operated up to 2000 m above sea level. For equipment to be operated at more than 2000 m above sea level and up to 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of IEC 60664-1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.</p>		N/A
2.10.3.3& 2.10.3.4	Add "(applicable for altitude up to 2000m)" in header of Table 2K、2L and 2M.		N/A

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.4	Add a new section above Table 2K and in Clause 2.10.3.4: Minimum CLEARANCES determined by above rules apply for equipment to be operated up to 2000m above sea level. For equipment to be operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1 (IEC 60664-1). For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of GB/T16935.1.		N/A
3.2.1.1	Add a paragraph before the last paragraph: Plugs connected to AC mains supply shall comply with GB 1002 or GB 1003 or GB/T 11918 as applicable.		N/A
4.2.8	Clause 4.2.8 cathode ray tubes quoted Clause 18 of GB8898-2011. Delete note of Clause 4.2.8.		N/A
Annex E	Last section of Annex E amended as: For comparison of winding temperatures determined by the resistance method of this annex with the temperature limits of Table 4B, 35 °C shall be added to the calculated temperature rise. And add note: for equipment not to be operated at tropical climatic conditions, 25 °C shall be added to the calculated temperature rise to compare with the temperature of Table 4B.		N/A
Annex G.6	Change the second section of Clause G.6 to be: For equipment to be operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.		N/A
Annex BB (informative)	Amended as : The differences between Chinese national standards GB 4943.1-2011 and GB 4943-2001.		N/A

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict
Annex DD (normative)	<p>Added annex DD: Instructions for the new safety warning labels.</p> <p>DD.1 Altitude warning label</p>  <p>Meaning of the label: Evaluation for apparatus only based on altitude not exceeding 2000m, therefore it's the only operating condition applied for the equipment. There may be some potential safety hazard if the equipment is used at altitude above 2000m.</p> <p>DD.2 Climate warning label</p>  <p>Meaning of the label: Evaluation for apparatus only based on temperate climate condition, therefore it's the only operating condition applied for the equipment. There may be some potential safety hazard if the equipment is used in tropical climate region.</p>		N/A
Annex EE (informative)	<p>Added annex EE:</p> <p>Illustration relative to safety explanation in normative Chinese, Tibetan, Mongolian, Zhuang Language and Uighu.</p>		N/A
Other amend-ments	<p>In accordance with the relevant CTL decisions and the amendments of IEC 60950-1, the specific requirements or mistakes in IEC standard are corrected or editorially modified in this part, Including clause 1.7, 2.1.1.7, 2.9.2, Table 2H, Figure 2H, F.8, F.9, M.3 and Annex U.</p>		N/A
Quoting standards and reference documents	<p>The principles of quoting and referring to other standards in Annex P and reference documents of IEC 60950-1 are as follows:</p> <p>If the date of the reference document is given, only that edition applies, excluding any subsequent corrigenda and amendments. However, parties to agreements based on this part are encouraged to investigate the possibility of applying the most recent editions of the reference documents. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendments.</p> <p>For the usage of international standards in Chinese national standards and industry</p>		N/A

National Differences			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>standards is various, in the aim of achieving easy operation and based on the requirements of GB/T 1.1 and GB/T 20000.2, when quoting an entire international standard in the normative quoting files and reference documents of Annex P of this part, the principles of quotation are as follows:</p> <ul style="list-style-type: none"> - If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted; - If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted; - If the date of the national standard or industry standard is not given, the latest edition of the standard applies; - The national standard or industry standard number, corresponding international standard number and the consistency level code should be identified in parentheses behind the listed national standard or industry standard. <p>When quoting several chapters or clauses of the international standard, the principles of quotation are as follows:</p> <ul style="list-style-type: none"> - If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted; - If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted. <p>Meanwhile, in order to retain the relevant information on international standards, informative annex CC is increased, which gives the table about the comparison of the normative quoting files and reference documents in IEC 60950-1: 2005 and GB 4943.1-2011.</p>		

J60950-1 (H22)			
Clause	Requirement + Test	Result - Remark	Verdict

J 60950-1 (H22) : 2010 TEST REPORT

(Deviations from IEC 60950-1:2001, first edition)

Special National conditions, National deviation and other information according to MITI Ordinance No. 85.

Japanese unique deviations in J60950-1(H22):2010(=JIS C 6950-1:2009)

1.2.4.1	Add the following new notes. Note: Even if the equipment is designed as Class I, the equipment is regarded as Class 0I equipment when 2-pin adaptor with earthing lead wire or cord set having 2-pin plug with earthing lead wire is provided or recommended.	Added.	P
1.2.4.3A	Add the following new clause. 1.2.4.3A CLASS 0I EQUIPMENT Equipment having attachment plug without earthing blade, where protection against electric shock is achieved by: - using BASIC INSULATION, and - providing externally an earth terminal or a lead wire for earthing in order to connect those conductive parts that might assume a HAZARDOUS VOLTAGES in the event of BASIC INSULATION fault to the PROTECTIVE EARTHING CONDUCTOR in the building wiring. NOTE – Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation circuit.	Added.	P
1.3.2	Add the following notes after first paragraph: Note 1 Transportable or similar equipment that are relocated frequently for intended usage should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel. Note 2 Considering wiring circumstance in Japan, equipment intended to be installed where the provision for earthing connection is unlikely should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel.	Added.	P

J60950-1 (H22)			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	<p>Replace the first paragraph with the follows: Where safety is involved, components shall comply either with the requirements of this standard, with the safety aspects of the relevant JIS component standard, or IEC component standards in case there is no applicable JIS component standard is available. However, a component that falls within the scope of METI Ministerial ordinance No. 85 is properly used in accordance with its marked ratings, requirements of 1.5.4, 2.8.7 and 3.2.5 apply, and in addition, a cord connector of power supply cord set mating with appliance inlet complying with the standard sheet of IEC 60320-1, shall comply with relevant standard sheet of IEC 60320-1.</p> <p>Replace Note 1 with the following: Note 1 A JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope.</p>	Added.	P
1.5.2	<p>Replace first sentence in the first dashed paragraph with the following:</p> <ul style="list-style-type: none"> - a component that has been demonstrated to comply with a JIS component standard harmonized with the relevant IEC component standard, or where such JIS component standard is not available, a component that has been demonstrated to comply with the relevant IEC component standard shall be checked for correct application and use in accordance with its rating. <p>Add a note after the first dashed paragraph as follows: Note 1 See 1.7.5A when Type C.14 appliance coupler rated 10 A per IEC 60320-1 is used with an equipment rated not more than 125 V and rated more than 10 A.</p> <p>Replace first sentence in the third dashed paragraph as follows:</p> <ul style="list-style-type: none"> - where no relevant IEC component standard or JIS component standard harmonized with the relevant IEC component standard exists, or where components are used in circuits not in accordance with their specified rating, the components shall be tested under the conditions occurring in the equipment. 	Added.	P
1.7.1	<p>Replace fifth dashed paragraph with the following:</p> <ul style="list-style-type: none"> - manufacturer's or responsible company's name or trade-mark or identification mark; 	<p>Added. The responsible company's name is list on the marking plate.</p>	P

J60950-1 (H22)			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5A	<p>Add the following new clause. after 1.7.5</p> <p>1.7.5A Appliance Coupler</p> <p>If appliance coupler according to IEC60320-1, C.14(rated current: 10A)is used in equipment whose rated voltage is less than 125V and rated current is over 10A, the following instruction or equivalent shall be described in the user instruction.</p> <p>“ Use only designated cord set attached in this equipment”</p>	Added.	N/A
1.7.12	<p>Replace first sentence with the following:</p> <p>Instructions and equipment marking related to safety shall be in Japanese.</p>	<p>Replaced.</p> <p>Safety instructions in Japanese language.</p>	P
1.7.17A	<p>Add the following new clause. after 1.7.17</p> <p>1.7.17A Marking for CLASS 0I EQUIPMENT</p> <p>For CLASS 0I EQUIPMENT, the following instruction shall be marked on the visible place of the mains plug or the main body:</p> <p>“Provide an earthing connection”</p> <p>Moreover, for CLASS 0I EQUIPMENT, the following or equivalent instruction shall be indicated on the visible place of the main body or written in the operating instructions:</p> <p>“Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains.”</p>	Added.	P
2.6.3.2	<p>Add the following after 1st paragraph.</p> <p>This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT.</p>	Added.	P
2.6.4.2	<p>Replace 1st paragraph with the following.</p> <p>Equipment required to have protective earthing shall have a main protective earthing terminal.</p> <p>For equipment with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance nlet is regarded as the main protective earthing terminal except for CLASS 0I EQUIPMENT providing separate main protective earthing terminal other than appliance inlet.</p>	Replaced.	P
2.6.5.4	<p>Replace 1st sentence with the following.</p> <p>Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:</p>	Added.	P


J60950-1 (H22)			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.8A	<p>Add the following new clause. after 2.6.5.8A</p> <p>2.6.5.8A Earthing of CLASS 0I EQUIPMENT</p> <p>Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 150V.</p> <p>For plugs with a lead wire for earthing, the lead wire shall not be earthed by a clip.</p> <p>CLASS 0I EQUIPMENT shall be provided with an earthing terminal or lead wire for earthing in the external location where easily visible.</p>	Added.	P
3.2.3	<p>Add the following after Table 3A:</p> <p>Table 3A applies when cables complying JIS C 3662 or JIS C 3663 are used. In case of other cables, cable entries shall be so designed that a conduit suitable for the cable used can be fitted.</p>	Added.	N/A
3.2.5.1	<p>Add the following to the last of first dashed paragraph.</p> <p>Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance.</p> <p>Add the following to the last of second dashed paragraph.</p> <p>Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance..</p> <p>Delete 1) in Table 3B.</p>	Added.	N/A
3.3.4	<p>Add the following note to Table 3D:</p> <p>Note For cables other than those complying with JIS C 3662 or JIS C 3663, terminals shall be suitable for the size of the intended cables.</p>	Added.	N/A
3.3.7	<p>Add the following after the first sentence:</p> <p>This requirement is not applicable to the external earthing terminal of Class 0I equipment.</p>	Added.	P
4.3.4	<p>Add the following after the first sentence:</p> <p>This requirement also applies to those connections in Class 0I equipment, where CLEARANCE or CREEPAGE DISTANCES over BASIC INSULATION would be reduced to less than the values specified in 2.10.</p>	Added.	P
5.1.3	<p>Add a note after the first paragraph as follows:</p> <p>Note – Attention should be drawn to that majority of three-phase power system in Japan is of delta connection, and therefore, in that case, test is conducted using the test circuit from IEC 60990, figure 13.</p>	<p>Added.</p> <p>Single phase power distribution system used.</p>	N/A

J60950-1 (H22)			
Clause	Requirement + Test	Result - Remark	Verdict

5.1.6	Replace Table 5A. as follows	Replaced. Class 0I or Class I equipment.	P																																	
	<table><tr><th>Type of equipment</th><th>Terminal A of measuring instrument connected to:</th><th>Maximum TOUCH CURRENT mA r.m.s. 1)</th><th>Maximum PROTECTIVE CONDUCTOR CURRENT</th></tr><tr><td>ALL equipment</td><td>ALL equipment Accessible parts and circuits not connected to protective earth</td><td>0,25</td><td>-</td></tr><tr><td>HAND-HELD</td><td rowspan="5">Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT</td><td>0,75</td><td>-</td></tr><tr><td>MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT</td><td>3,5</td><td>-</td></tr><tr><td>STATIONARY, PLUGGABLE TYPE A</td><td>3,5</td><td>-</td></tr><tr><td>ALL other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7</td><td>3.5 -</td><td>- 5 % of input current</td></tr><tr><td>HAND-HELD</td><td rowspan="2">Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT</td><td>0,5</td><td>-</td></tr><tr><td>Others</td><td>1.0</td><td>-</td></tr><tr><td colspan="4">1) If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.</td></tr></table>				Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. 1)	Maximum PROTECTIVE CONDUCTOR CURRENT	ALL equipment	ALL equipment Accessible parts and circuits not connected to protective earth	0,25	-	HAND-HELD	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	0,75	-	MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT	3,5	-	STATIONARY, PLUGGABLE TYPE A	3,5	-	ALL other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7	3.5 -	- 5 % of input current	HAND-HELD	Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT	0,5	-	Others	1.0	-	1) If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.			
Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. 1)	Maximum PROTECTIVE CONDUCTOR CURRENT																																	
ALL equipment	ALL equipment Accessible parts and circuits not connected to protective earth	0,25	-																																	
HAND-HELD	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	0,75	-																																	
MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT		3,5	-																																	
STATIONARY, PLUGGABLE TYPE A		3,5	-																																	
ALL other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7		3.5 -	- 5 % of input current																																	
HAND-HELD		Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT	0,5	-																																
Others	1.0		-																																	
1) If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.																																				

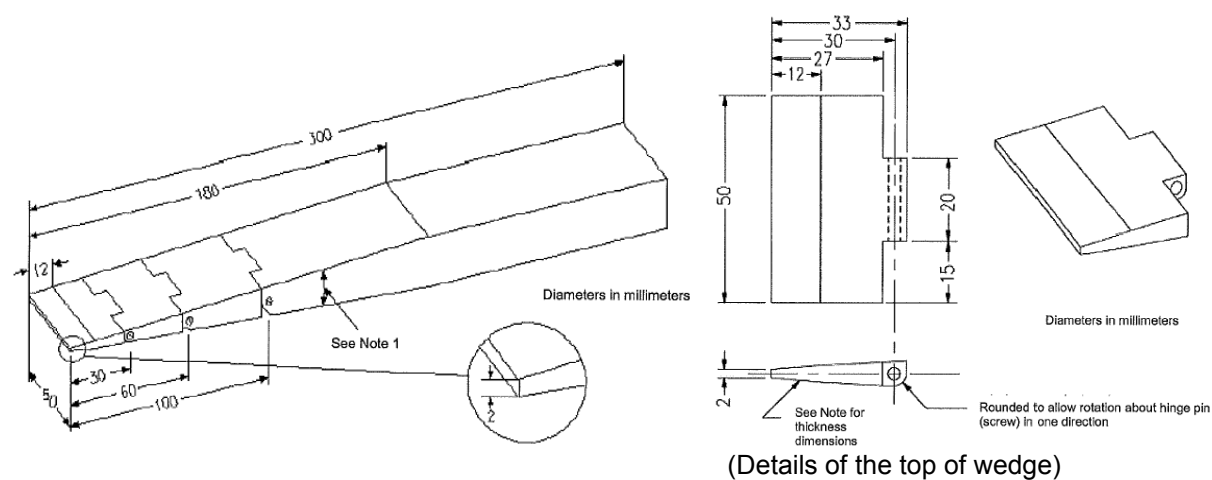
J60950-1 (H22)			
Clause	Requirement + Test	Result - Remark	Verdict
7.2	<p>Add the following after the paragraph:</p> <p>However, the separation requirements and tests of 6.2.1 a), b) and c) do not apply to a CABLE DISTRIBUTION SYSTEM if all of the following apply:</p> <ul style="list-style-type: none"> – the circuit under consideration is a TNV-1 CIRCUIT; and – the common or earthed side of the circuit is connected to the screen of the coaxial cable and to all accessible parts and circuits (SELV, accessible metal parts and LIMITED CURRENT CIRCUITS, if any); and – the screen of the coaxial cable is intended to be connected to earth in the building installation 	Added.	N/A
W.1	<p>Replace second and third sentence in the first paragraph with the following:</p> <p>This distinction between earthed and unearthed (floating) circuit is not the same as between CLASS I EQUIPMENT, CLASS 0I EQUIPMENT and CLASS II EQUIPMENT. Floating circuits can exist in CLASS I EQUIPMENT or CLASS 0I EQUIPMENT and earthed circuits in CLASS II EQUIPMENT.</p>	Added.	N/A

J60950-1 (H22)			
Clause	Requirement + Test	Result - Remark	Verdict

Annex JA	<p>Add a new annex JA with the following contents.</p> <p style="text-align: center;">Annex JA (normative)</p> <p style="text-align: center;">Document shredding machines</p> <p>Document shredding machines shall also comply with the requirements of this annex except those of STATIONARY EQUIPMENT used by connecting directly to an AC MAINS SUPPLY of three-phase 200V or more.</p>	Added. Not Document shredding machines.	N/A
JA.1	<p>Markings and instructions</p> <p>The symbol</p>  (JIS S 0101:2000, 6.2.4) and the following precautions for use shall be marked on readily visible part adjacent to document feed opening. The marking shall be clearly legible, permanent, and easily discernible; <ul style="list-style-type: none"> - that use by an infants/children may cause a hazard of injury etc.; - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothing can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas. 	Added. Not Document shredding machines.	N/A
JA.2	<p>Inadvertent reactivation</p> <p>Any safety interlock that can be operated by means of the test finger, Figure JA.1, is considered to be likely to cause inadvertent reactivation of the hazard.</p> <p>Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1</p>	Added. Not Document shredding machines.	N/A

J60950-1 (H22)			
Clause	Requirement + Test	Result - Remark	Verdict
JA.3	<p>Disconnection from the mains supply Document shredding machines shall incorporate an isolating switch complying with sub-clause 3.4.2 as the device disconnecting the power of hazardous moving parts. For this switch, two-position (single-use) switch or multi-position (multifunction) switch (e.g., slide switch) may be used.</p> <p>If two-position switch, the positions for "ON" and "OFF" shall be indicated in accordance with sub-clause 1.7.8. If multi-position switch, the position for "OFF" shall be indicated in accordance with sub-clause 1.7.8 and other positions shall be indicated with proper terms or symbols.</p> <p>Compliance is checked by inspection.</p>	Added. Not Document shredding machines.	N/A
JA.4	<p>Protection against hazardous moving parts Any warning shall not be used instead of the structure for preventing access to hazardous moving parts.</p> <p>Document shredding machines shall comply with the following requirements.</p> <p>Insert the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying appreciable force. It shall not be possible to touch hazardous moving parts with the test finger. This consideration applies to all sides of MECHANICAL ENCLOSURES when the equipment is mounted as intended. Before testing with the test finger, remove the parts detachable without a tool.</p> <p>Insert the wedge-probe, Figure JA.2, into the document-slot. And, against all directions of openings, if straight-cutting type, a force of 45 N shall apply to the probe, and 90 N if cross-cutting type. In this case, the weight of the probe is to be factored into the overall applied force. Before testing with the wedge-probe, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shedding, with the probe.</p>	Added. Not Document shredding machines.	N/A

J60950-1 (H22)			
Clause	Requirement + Test	Result - Remark	Verdict



Distance from the top	Thickness of probe
0	2
12	4
180	24

points shown in the table.

Note 2 –The allowable dimensional tolerance of the probe is ± 0.127 mm.

Figure JA.2 Wedge-probe

Note 1 - The thickness of the probe varies linearly, with slope changes at the respective

National Differences			
Clause	Requirement – Test	Result – Remark	Verdict
Appendix	J3000 (H21) Special National conditions, National deviation and other information according to MITI Ordinance No. 85.		—
1	General requirement When equipment provides with appliance inlet complying with JIS-C 8283-1(2008), soldered parts of appliance inlet is not applied by force during insert or removal of connector. This is not applied when inlet body is fixed itself and not fixed by solder.	Inlet is cover by adequate mechanical construction, not rely on soldering.	P
2	Requirement for equipment		—
2.1	Electric heater When diode is used in parallel for adjustment of power, the equipment shall remain safe for operation under open condition of one diode.	Not electric stove.	N/A
	The current rating of one diode shall be more than main current. The diodes connected in parallel are same type.		N/A
	The heating test specified by clause 11 of JIS C 9335-2-30(2006) under open condition of one diode shall comply with the requirements.		N/A
2.2	Electric heater with glowing heating elements	Not electric stove.	N/A
	Surface treatment by paint or adhesive on protective frame or protective mesh shall not be used.		N/A
	Caution marking like below shall be on - easily visible place of the equipment or - Instruction manual 「注意 当該機器から、使用初期段階で揮発性有機化合物およびカルボニル化合物が最も放散するおそれがあるため、その際には十分換気を行うこと。」		N/A
3	Components used in equipment	No relevant equipment or component.	N/A
3.1	Motor capacitors used in air conditioner, electric washing machine, refrigerator or electric freezer shall be comply with - capacitors with protective elements or protective mechanism complying with JIS C 4908(2007) - P2 capacitor complying with IEC 60252-1(2001) Capacitor complying with below is acceptable		N/A
	Enclosed by metal or ceramic		N/A
	No non-metallic materials within 50 mm from		N/A

National Differences			
Clause	Requirement – Test	Result – Remark	Verdict
	capacitor surface		
	Non-metallic material within 50 mm from capacitor surface comply with needle frame test of JIS C 9335-1(2003), Annex E		N/A
	Non-metallic material within 50 mm from capacitor surface comply with V-1 test of JIS C 60965-11-10(2006).		N/A
3.2	<p>Plug directly inserted to outlet used refrigerator or electric freezer.</p> <p>Shall comply with</p> <ul style="list-style-type: none"> - Face contact with outlet shall have CTI with more than 400 according to JIS C 2134(2007) or - Supporting material of blades shall comply with glow wire test by temperature of 750°C according to JIS C 60695-2-11(2004) or JIS C 60695-2-12(2004). <p>Materials having glow wire frame temperature of 775 °C are acceptable.</p>		N/A

National Differences			
Clause	Requirement – Test	Result – Remark	Verdict
APPENDIX	Ukrainian National Differences according to CB Bulletin No. 110A, June 2006 (IEC Publication 60950:1999)		P
EXPLANATION FOR ABBREVIATIONS P=Pass, F=Fail, N/A=Not applicable. Placed in the column to the right.			
1.4.5	In Ukraine the NOMINAL VOLTAGE is 220 V for monophase or 380 V for three-phase supply.		N/A
1.5.8	In Ukraine components connected between phase and earthing or between phase and neutral terminal shall be calculated for the voltage between phases.		N/A
1.7.2	In Ukraine for the APPARATUS of CLASS I the necessity of its obligatory earthing shall be indicated in the manuals.		N/A
2.3.3	In Ukraine method b) is not used.		N/A
6.2.2	In Ukraine the both tests in 6.2.2.1 and 6.2.2.2 are applied.		N/A
6.2.2.1	In Ukraine in 6.2.1 a) is used Uc=3.5 kV.		N/A
6.2.2.2	In Ukraine in 6.2.1 a) is used 3.0 kV for telephones and headsets and 2.5 kV for other equipment and in 6.2.1 b) and c) is used 1.5 kV.		N/A
Annex N	In Ukraine in 6.2.1 a) is used 3.0 kV for telephones and headsets and 2.5 kV for other equipment and in 6.2.1 b) and c) is used 1.5 kV.		N/A